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Telephony

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TELEPHONE INDUSTRY
SINCE 1901

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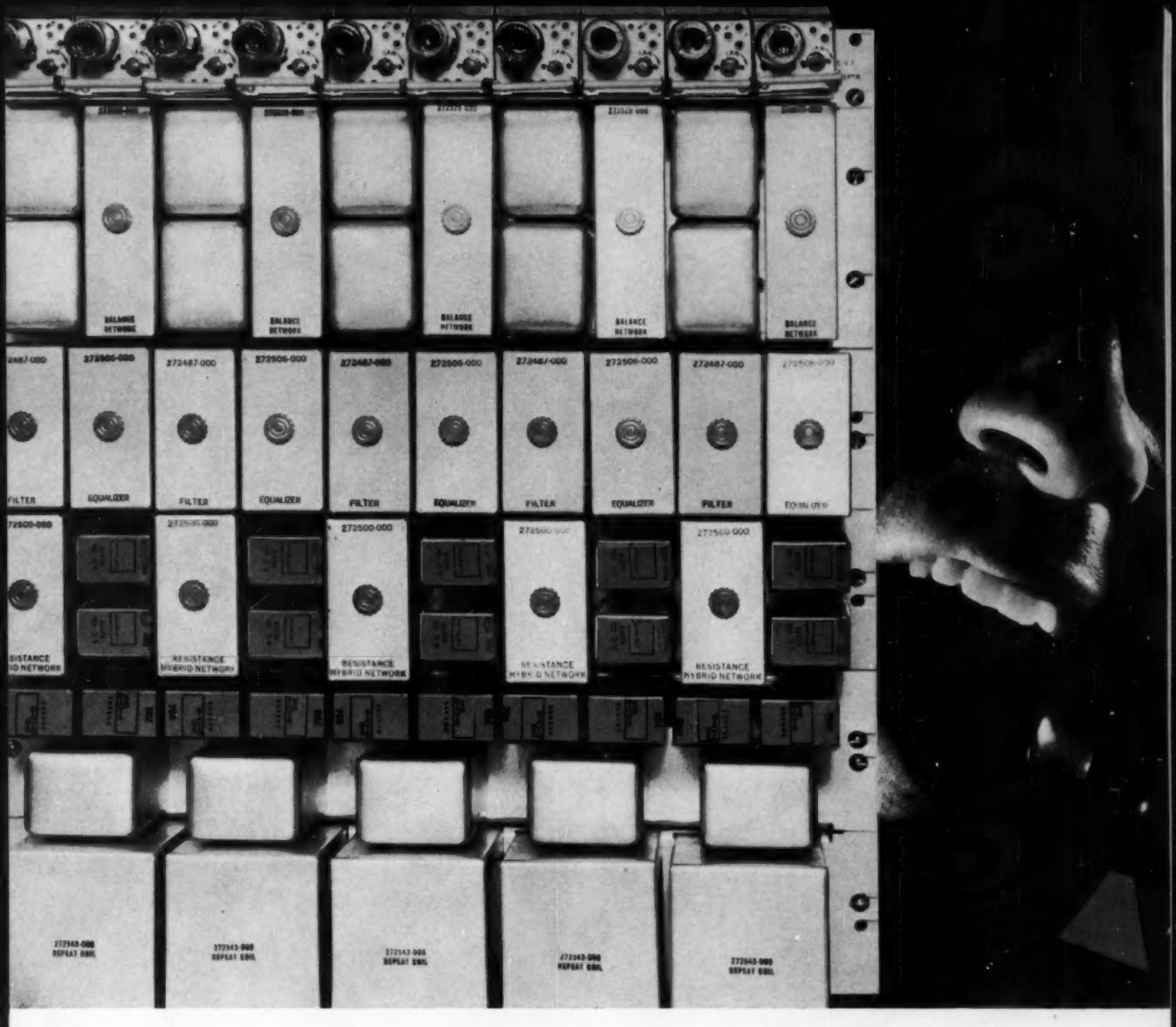
Guaranteed Circulation This Issue
13,141 of Which 12,503 Is Paid

NOVEL SALES METHOD

The Carolina Telephone & Telegraph Co. is using four-cent stamps to promote extension telephone sales. Public contact employes wearing button with stamp give extension cost as four cents a day. Story, page 47.

MANAGEMENT • PLANT • TRAFFIC • COMMERCIAL • LEGAL • ACCOUNTING

Overcome high transmission loss...



with Stromberg-Carlson "551" Hybrid-type Repeaters

On circuits with high transmission loss, these voice repeaters provide the gain needed to achieve toll standards.

Their initial cost is low. Their in-use economy has been proved in *actual db per dollar*. Centralized maintenance means additional economy in terms of man-hours saved.

With "551" repeaters you get a system tailored exactly to your operating needs. You may use these for 2- or 4-wire operations; as through or terminal repeaters; for side or phantom circuits.

Your Stromberg-Carlson representative will gladly supply technical data, prices and ordering information.

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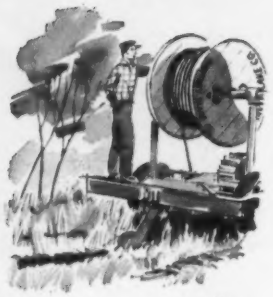
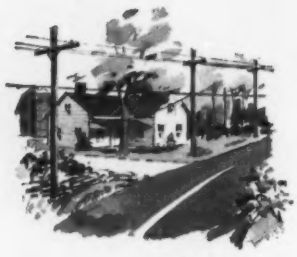
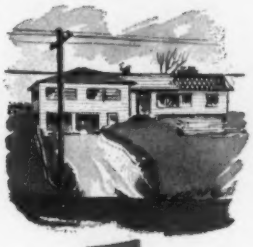
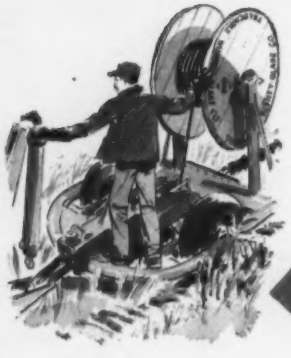
WHITNEY BLAKE *High Quality*







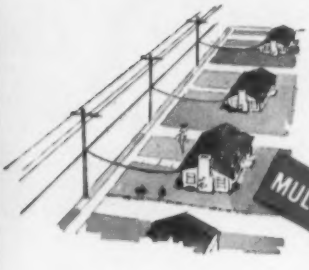


Underground Service

Parallel Distribution

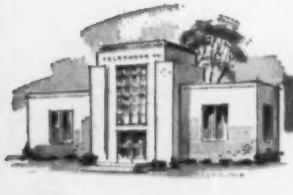
Armored TELESEAL

TELECABLE Direct Burial



MULTI-PAIR DISTRIBUTION

TELECABLE® Aerial and Duct



TELEFRAME®

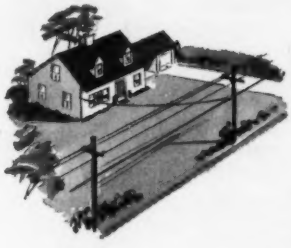
WHITNEY BLAKE

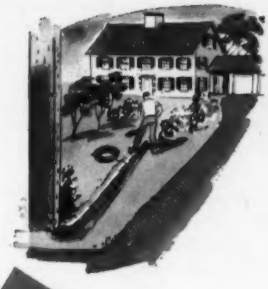
Experience is essential in the design and manufacture of telephone wire and cable meeting the rigid performance requirements of the Independent Telephone Industry. The Whitney Blake Company, a major supplier of wire and cable for over 50 years, has this experience and is responsible for much of the development work benefiting the Independent Industry.

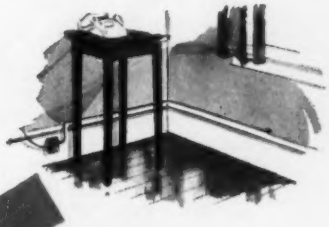
In the Independent field, Whitney Blake was first to introduce neoprene jacketed drop wire . . . first to introduce the process of Teleplating drop wire conductors for adhesion

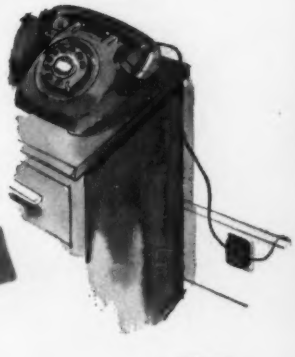
WHITNEY
NEW HAVEN 14,

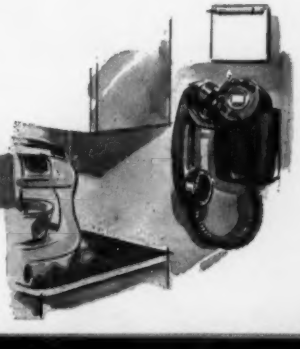
Telephone Wire and Cable











TELECABLE Multiple Drop

TELEPRENE® Reinforced Drop

TELESEAL® Twisted Pr.

TELECABLE Inside Wiring

TELEDUCT®

TELECORD®

KOILED KORDS*

LEADS THE WAY

equal to the tensile strength of the conductor . . . first to standardize on a polyethylene jacketed Exchange Area Cable . . . first to bring out Multi-pair Distribution Wire . . . first to offer semi-rigid insulation on Inside Wiring Cable and Distributing Frame Wire. The Koiled Kords Division of The Whitney Blake Company was first to introduce tinsel retractile telephone cords and retractile cords to match colored telephones.

Past, present and future developments will continue to single out Whitney Blake as the leader.

BLAKE CO.
CONNECTICUT

*Trademark

FLASHES AND PLUGS

SIMPLE AS 1, 2, 3, 4. From the San Diego (Cal.) *Evening Tribune* comes a report of a local citizen who has built a successful business partly, it appears, by his timely application for telephone numbers.

It all began when C. J. Allen, a power tool shop owner in National City, Cal., called at the Pacific Telephone & Telegraph Co. office and requested a telephone. The service clerk told him he was really in luck—the next number in the assignment book was NAtional 1111.

Today, Mr. Allen's three telephones are listed with a GRidley 7 exchange and the numbers 2222, 3333, and 4444; and the Pacific company says it knows of no subscriber in the United States who can challenge him in numerical distinction.

How did he do it?

"It was just by diligent work," asserts the business subscriber. "You pick out something you want to do, and you keep at it."

To be more specific: One day, he was trying out the dial soon after the exchange's conversion to automatic operation, and an operator told him he had dialed a wrong number. That number was GR 7-4444. He went to the telephone office at once, and asked for the number—and he got it!

Soon, Mr. Allen discovered that 2222 belonged to a paint store, and that a residence had 3333.

By some alert telephone checking—calling up every two or three weeks to see if the paint shop was still in business there and by driving by the paint store, he just happened to be there on a weekend soon after the 2222 number went out of business. He hurried to a paystation, dialed the number, and sure enough, the telephone had been disconnected!

Monday morning found him again in the telephone office, asking for another number. When he asked for 2222, he was told it could not be assigned just for the picking, and besides, he would be bothered with a lot of calls for the paint store. The latter possibility didn't disturb him, at all—in fact, it sounded good.

And—after a while, the telephone company gave in and assigned 2222 also to the persistent Mr. Allen.

To get 3333, he outwaited a family, who finally moved away. Before the moving van left town, he visted the telephone office again. He got the desired number after a slight delay.

Now, says Mr. Allen, "Man, I got all the business I want. I came down to the shop at 3 o'clock this morning trying to get caught up on work. People interested in power tools around these parts, they don't stop to look up some number in the telephone book."

•

NEED FOR NAVIGATOR. A motorist was going the wrong way down a one-way street and he was stopped by an officer.

"Where do you think you're going?" the policeman growled.

"I don't know," sighed the motorist, "but I must be late. Everybody seems to be coming' back."

CHANGE OF ADDRESS

Please notify your local postmaster and the Circulation Dept. of TELEPHONY of change of address. Change cannot be made without the old as well as the new address. Allow three weeks for change of address to become effective.

Telephony

THE JOURNAL OF THE TELEPHONE INDUSTRY
Since 1901

June 6, 1959

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H. D. FARGO JR., *President and Director of Advertising* • A. J. STULTS, *Vice President and Advertising Manager* • R. C. RENO, *Vice President and Editor* • DAN S. FARGO, *Vice President and Managing Editor* • DIANNE P. DRUCKER, *Associate Editor* • HELEN HARDIN, *Associate Editor* • FRANCIS X. WELCH, *Washington Editor* • RAY BLAIN, *Technical Editorial Director* • HAROLD B. McKAY, *Electronics Editor* • MAYME WORKMAN, *Traffic Editor* • VIVIAN RYDEN, *Circulation Manager.*

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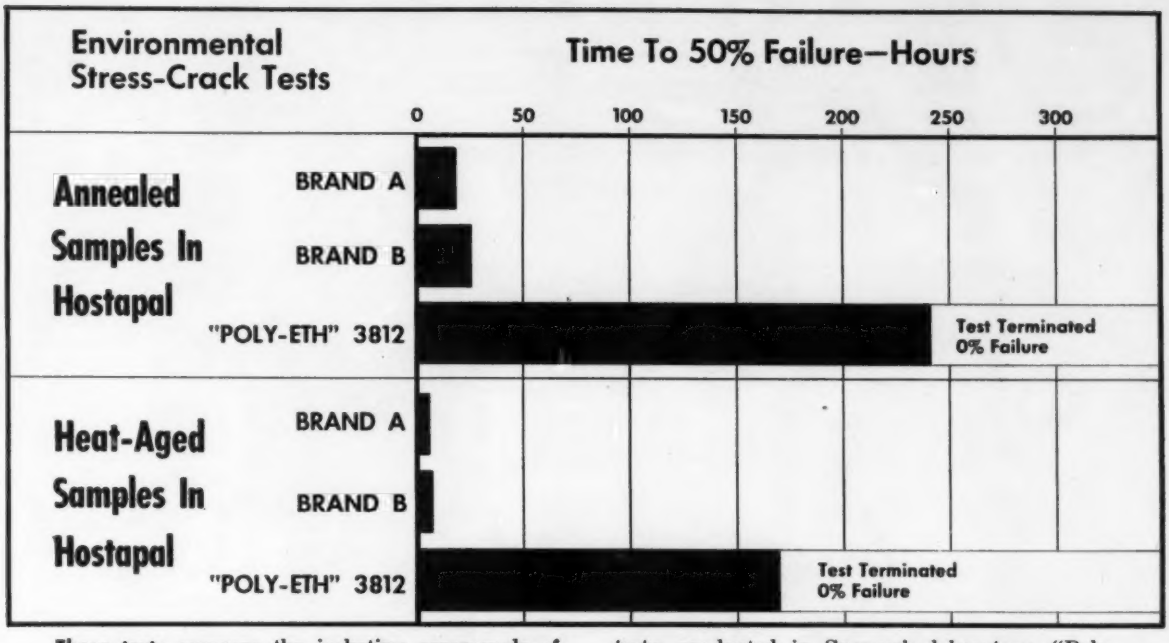


These tests compare the jacketing compounds of two well-known brands of polyethylene vs Spencer's new "Poly-Eth" 3812. In these widely used industry tests, conducted in Spencer's laboratory, "Poly-Eth" 3812 showed no stress crack failure, even in samples heat-aged for 7 days at 70° C.

Extended tests of new Spencer compound for polyethylene cable jacketing show:

No Stress-Crack Failures!

. . . and this unique resin offers superior carbon black dispersion and promises greater service life.

After two years' study of the requirements of the Electrical Industry, Spencer Chemical Company announces a new and unique polyethylene compound that sets a new standard for resistance to stress-cracking. In Spencer's laboratory, test samples of this new resin—designated as "Poly-Eth" 3812—have been subjected to extended tests for environmental stress-cracking without failure.

Applicable industry standards are easily met by this new resin, which is produced by a new polymerization process developed by Spencer. This process is designed to produce a material with superior wire and cable jacketing properties. The new product not only has "built-in" stress-crack resistance, but offers two other important advantages:

1 Excellent carbon black dispersion, superior to that of any other available compound tested.

2 Greater service life, assured by its unique balance of stress-crack resistance, carbon dispersion and proven antioxidant.

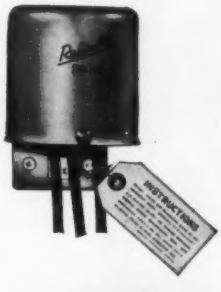
Among the uses for which "Poly-Eth" 3812 is formulated are: signal cables, telephone cables, power cables and weather-proof line wire. Whether you are a user or a processor of any of these, it will pay you to get the complete facts about this revolutionary new polyethylene compound. Contact your Spencer Sales Representative, or write direct to Plastics Division, Spencer Chemical Co., Dwight Building, Kansas City 5, Missouri.

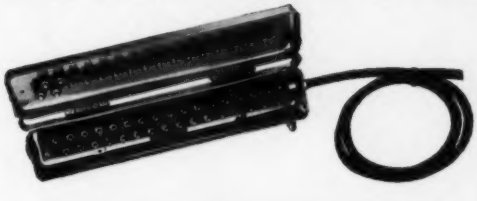
SPENCER CHEMICAL COMPANY
Dwight Bldg., Kansas City 5, Mo.

Terminals, protectors and associated equipment for any telephone operation are provided for you at our warehouses. You get famous brands like Reliable and Cook. In most cases, your order is picked from stock and shipped the same day it arrives in our warehouse.

Your supply business is important to us. We want to receive orders from you today...and for many years ahead. And, the best way we can do this is to give you *prompt delivery* from a *large stock* of *famous brands*. Next time you need terminals and protectors, give us a call. We'll stay up nights to prove—at AE, you get all 3.

TERMINALS AND PROTECTORS





at AE you get all 3

PROMPT DELIVERY
LARGE STOCKS
FAMOUS BRANDS

Automatic's 5 friendly warehouses:

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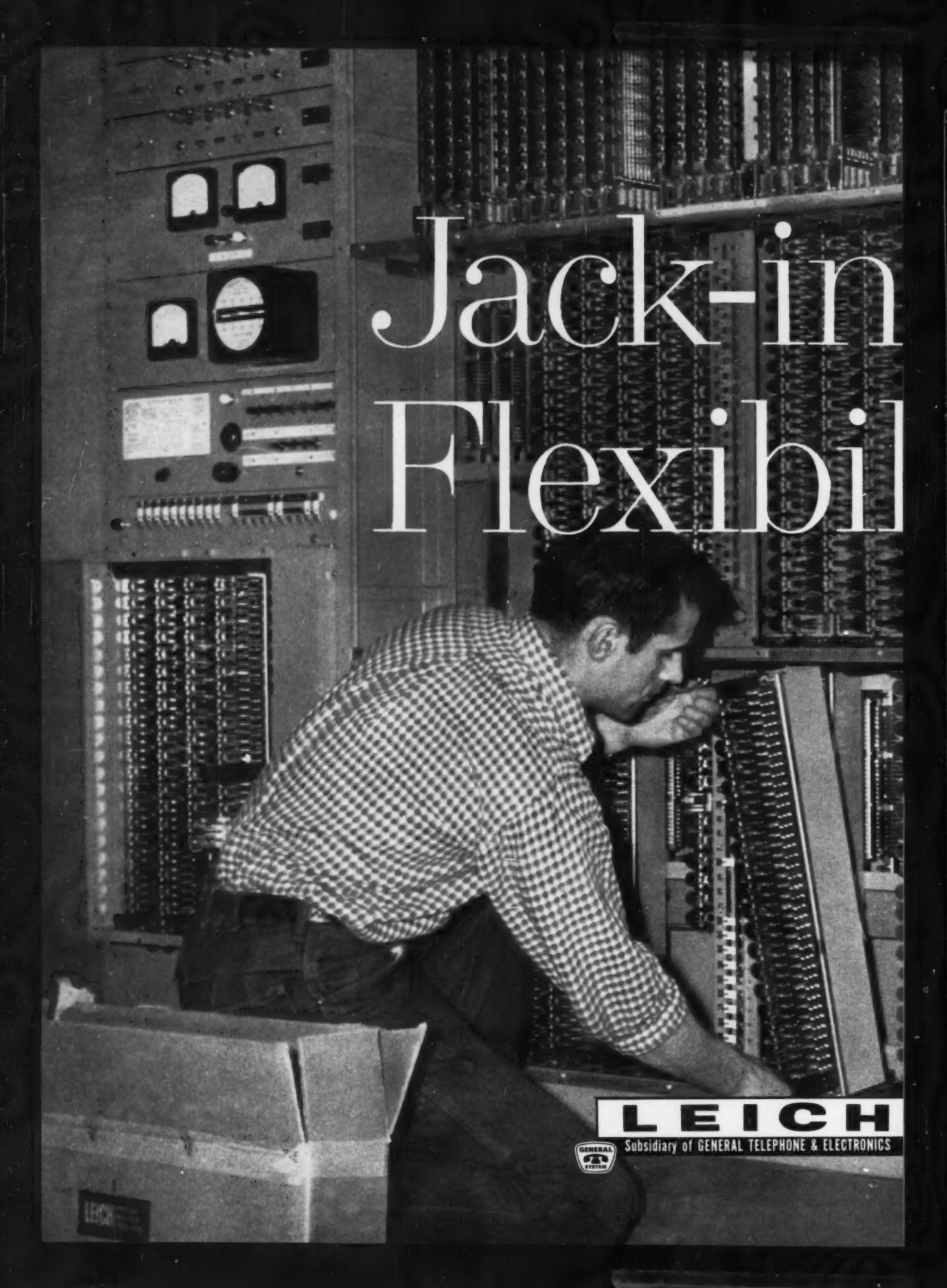
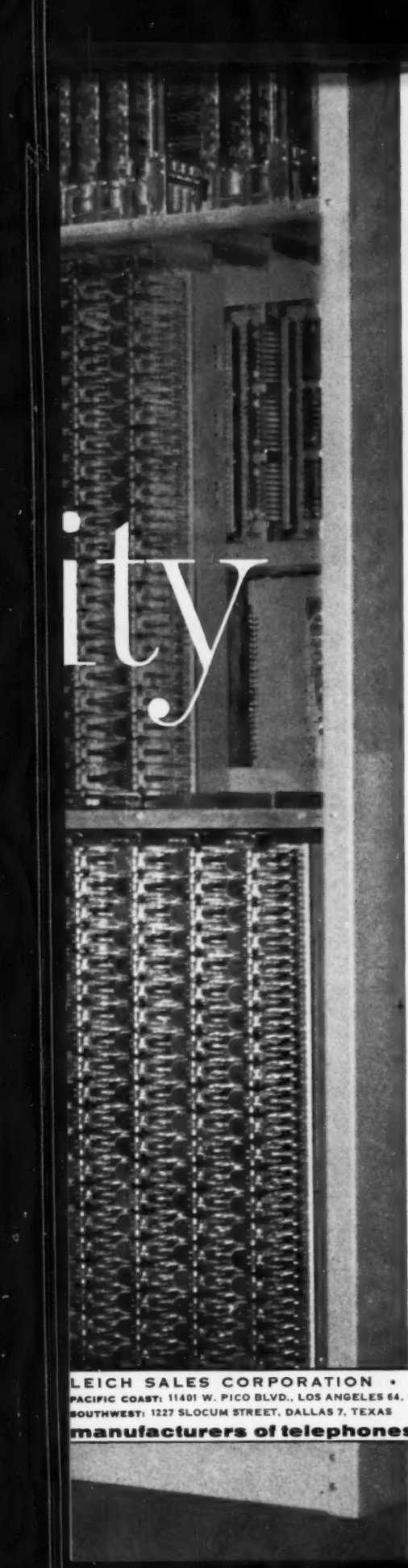
	ELgin 8-9280	CApital 3-7244	SWarthmore 7-8507	HArrison 1-7575

AUTOMATIC ELECTRIC

Subsidiary of
GENERAL TELEPHONE & ELECTRONICS

GENERAL SYSTEM


Jack-in
Flexibil
LEICH
Subsidiary of GENERAL TELEPHONE & ELECTRONICS
GENERAL SYSTEM



ity

MONEY-SAVING FEATURES OF THE LEICH DIAL SYSTEM

lets you add a fire alarm bar for only $180.00

You can add fire alarm service to your community's exchange almost as easily as you put a tube in your radio! The jack-in flexibility of the Leich Dial System offers this valuable service feature—and for only $180.00.

All you do is jack-in the fire-alarm bar, and make a few minor wiring changes. The fire alarm bar lets your local fire department or police station alert 8 specified station lines simultaneously. A common talking circuit permits the 8 stations to talk with each other, as well as the calling party. If one of the 8 station lines is busy, it receives a warning tone.

Lines and links can also be jacked-in to your Leich Dial System economically. For example, it costs only $188.00 for a relay bar that adds 10 lines to your Leich Dial System.

A Leich sales engineer is at your service. There's no obligation. Write for details.

LEICH SALES CORPORATION • 427 WEST RANDOLPH STREET • CHICAGO 6, ILLINOIS

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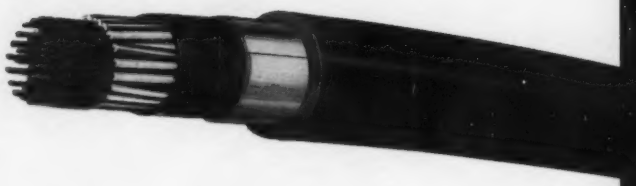
manufacturers of telephones, switchboards and related apparatus since 1907

AERIAL AND DUCT TYPE



DIRECT BURIAL TYPE

PHELPS DODGE TELEPHONE WIRE

THE "MINE-TO-MARKET" QUALITY

Exchange Area Telephone Cable

This Phelps Dodge cable, designed for aerial, duct and direct burial use, has a lightweight, thermoplastic construction—including fully color coded conductors—that makes handling easier and cuts installation time.

Exceptionally fine electrical properties and superior resistance to moisture, weathering and abrasion are assured through the use of highest grade materials, skilled workmanship and manufacturing experience.

The controlled craftsmanship and high quality of Exchange Area Telephone Cable are typical of the entire line of Phelps Dodge telephone wires and cables including:

- Self-Supporting Telephone Cable
- Rural and Urban Distribution Telephone Wire
- Interior Telephone Cable
- Rubber-Insulated Lead-Sheathed Telephone Cable
- Paper-Insulated Lead-Sheathed Telephone Cable
- PD-Tel Wire

AND CABLE

LINE!

PHELPS DODGE COPPER PRODUCTS

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PD

Whenever, Wherever you need

Complete, Dependable

Call Kellogg

Whatever it takes to operate a telephone company—*you can get it all from Kellogg*... a single, reliable source serving independent telephony for more than 60 years with equipment of unmatched dependability and advanced engineering.

Whether or not your immediate needs are shown on these pages, call Kellogg *first before you buy*—your centrally-located Kellogg warehouse has exactly what you're looking for.

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Communications Division of IT&T

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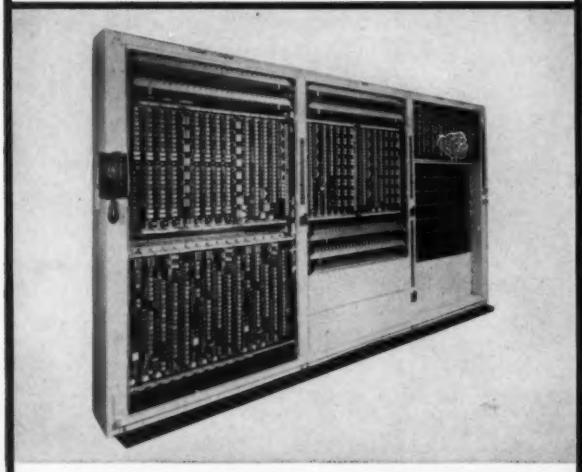
EXPORT: 167 Prospect Street, Passaic, N. J., PRescott 3-5100.

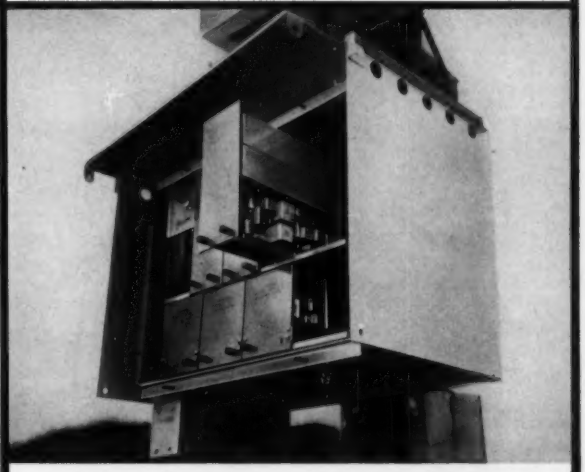
Equipment and Service

K-500 Telephones—The most advanced and reliable units available to independent telephony. Available in 15 sparkling decorator colors that your subscribers want—in both desk and popular wall models.

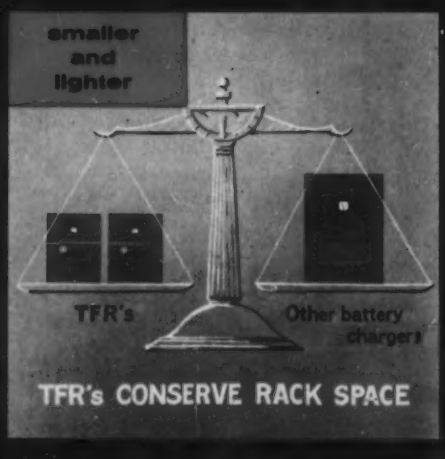
K1A1 Intercom—A complete system in one telephone: "HOLD" buttons, tie-in lines, added subscriber lines—any selection desired on the fast, easy-to-use buttons. "Executive exclusive" feature for confidential calls. Full color range.



Switching Systems—K-60 Crossbar—Tailored to fit any requirement. One unit handles from 10 to 10,000 lines... meets requirements of nation-wide toll dialing. Many exclusive features found in no other system.

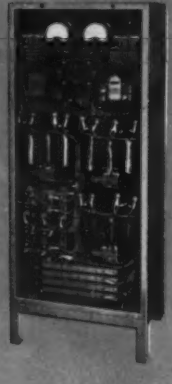


Kellogg K-31 Carrier—New rural subscriber carrier system provides toll quality at low cost. Completely transistorized... up to 8 separate voice channels... printed circuits... plug-in construction. Easy to install, line up and test.



What you want most in battery chargers, you get in

WARREN TFR
TRANSISTOR FLOAT RECTIFIERS



Warren TFRs are automatic, full-float, silicon-type battery chargers. Through reliable power transistor control, they provide precise voltage regulation, superior efficiency. The best in battery chargers, these compact, field-proved Transistor Float Rectifiers are available from 3 to 400 amperes. Specify Warren TFRs and you get what you want *most* in battery chargers... dependable, maintenance-free, adjustment-free performance.

Warren 100 ampere TFR (shown with cover removed): 45½" high, 23" wide, 15" deep; 685 pounds net weight. Write today for complete information.

THE WARREN MFG. COMPANY, INC.
LITTLETON, MASSACHUSETTS

WARREN MANUFACTURING WM

IN THE NATION'S CAPITAL

BY FRANCIS X. WELCH, WASHINGTON EDITOR

Report of House Anti-trust Sub-committee on AT&T-Western Electric consent decree analyzed . . . Democrats, through the sub-committee, charged with trying to make utilities political issue in 1960.

THE ANTI-TRUST Sub-committee of the House Judiciary Committee, on May 26, released the full text of the "majority" as well as the "minority" report on its two-year investigation of the American Telephone & Telegraph Co.'s consent decree. Your correspondent has put the word "majority" in quotes because, actually, only a minority of the full membership of the nine-man sub-committee, headed by Representative Celler (D., N. Y.), signed the report and the division was strictly along partisan lines.

Chairman Celler and three other Democrats joined in this "majority" report while three Republicans signed the "minority" report. Two other Democratic members of the sub-committee refused to sign anything. So, inasmuch as Chairman Celler was the leading spirit in sparkplugging this investigation and bringing out the rather voluminous report (379 printed pages, including both "majority" and "minority" and various appendices), perhaps it would be more appropriate to refer to the "majority" report as the Celler report and the "minority" report as the dissenting report.

It should also be noted, by way of background, that this investigation, made pursuant to House Resolution 27, was not confined to the American Telephone & Telegraph Co.'s consent decree. On the contrary, the ostensible purpose of the investigation was to review the entire consent decree program of the Department of Justice as it has been employed in approximately four out of five of all the anti-trust judgments obtained by the government since the first consent decree was entered in 1906. A total of these civil anti-trust suits was given as 554 judgments (to the end of 1958), of which 454 were consent decrees.

But the Celler sub-committee took a short-cut in its investigation and purported to review only two major consent decrees as representative case studies. The AT&T-Western Electric case was one and the disposition of the government's case against 20 some oil companies was the other. About half of the 379-page report deals with the oil companies and about half with the AT&T-Western Electric case.

Readers of this department are probably aware—at least in a general way—of what this AT&T-Western Electric case is all about. In 1949, suit was filed by Attorney General Tom C. Clark (now a U. S. Supreme Court Justice) charging that the control by the AT&T of its manufacturing subsidiary, Western Electric, resulted in a conspiracy to restrain and monopolize manufacturing, distribution, and sale of telephone apparatus and other communication equipment in violation of the Sherman Anti-trust Act. The complaint included other charges dealing with patent licensing and the effect of the Western Electric relationship on free competition in the manufacturing field and on the regulation of Bell System telephone company rates at the state commission level.

The complaint ended up with a request that the court direct the American Telephone & Telegraph Co. to divorce Western Electric from all other companies of the Bell System and that the court further direct Western Electric to be split up into three competitive manufacturing concerns. There were also supplemental requests, such as a requirement that the Bell System companies should buy equipment only by competitive bidding; that Western Electric should sell out its stock interest in Bell Laboratories; and other details.

The case dragged on for six years, during which three successive Democratic attorneys general did nothing about it. The dissenting report plainly charges that they did nothing about it because they thought they could not win the case, and rather than lose it, decided not to prosecute. After the Eisenhower administration came into office in 1953, the Justice Department, under former Attorney General Brownell, insisted on a speed-up program to get rid of a lot of anti-trust suits which were hanging around—some for many years. The quickest way to get results, of course, as in any other kind of a lawsuit, is to settle for something less than the original demand. And, this was done, following negotiations between the attorney general's office and the American Telephone & Telegraph Co., which resulted in the filing of a consent decree on Jan. 24, 1956, in the federal district in New Jersey.

By that time, the AT&T-Western Electric anti-trust suit was seven years old, although it was by no means the oldest. Some of these cases lie around for years and years, as in the celebrated Du Pont and aluminum company anti-trust suits. The average period between the time of filing and final disposition (of cases disposed of between 1951 and 1957) was five years per case, for those which went to court on a contested basis. Where they were disposed of by consent decrees, the average time was cut almost in half—two and three-quarters years. So, obviously the consent decree was a handy short-cut in getting rid of accumulated cases which the Eisenhower administration found stacked up on the

shelves of the Justice Department when it came to Washington in 1953.

Effect of Consent Decree

Readers of this department will recall that the consent decree settled for considerably less than the government's original demand. In brief, Western Electric was permitted to continue as the manufacturing subsidiary of the Bell System. But, it agreed to restrict its operations to the supply of equipment for regulated telephone services and to get out of other competitive non-utility manufacturing activities. There were other very substantial concessions, including royalty-free grants of patent rights, the limiting of certain profitable business operations and the surrendering of others.

Shortly after the consent decree was filed, criticisms began to be heard in Congress to the effect that the Justice Department was too "lax" in allowing the government's suit to be ended on a consent decree basis under such circumstances. Of course, in anything so complicated as an anti-trust case, it is possible to get a rainbow variety of opinions about whether the results were proper or adequate or desirable.

The effect of a consent decree, however, means that the case is disposed of just as if the parties had contested the proceedings in open court with full evidence on the record, and a resulting conclusion and order by a court, with or without a jury verdict. If the government had asked for a dismissal of its suit "without prejudice," as the lawyers say, it could be started up again at any time. Or, if it had simply let the complaint hang fire as the three preceding attorneys general had done before Brownell settled this case, the government could move to start prosecution.

But, it is important to remember that even after the parties to a consent decree have agreed to its terms, the court can still approve or disapprove or order things to be changed. In this case the court approved the filing of the decree, but it retained "continuing jurisdiction" for the purposes of enabling either the government or the Bell System to apply for clarification or modification in the light of changing circumstances. Furthermore, as the Celler report points out with great emphasis, recent U. S. Supreme Court decisions have clearly ruled that consent decrees may be reopened for further review and changes in the light of subsequent developments. So, the consent decree, in this case, was by no means an ironclad covenant, freezing the rights of any party, including the public interest, for all time to come.

So, what was all the shooting about which led to the Celler report? This writer reviewed the text of the report carefully and can only reach the conclusion that Chairman Celler and his three colleagues in agreement just did not like the way negotiations were conducted. There were charges of "irregularity," a good bit of pouting because government agencies did not turn their files inside out for the Celler sub-committee, and some other innuendoes which amount mainly to second guessing a lawsuit after it has been settled.

So, what does the Celler Report ask? That is the most surprising thing of all to this observer. One would expect that an investigating sub-committee of the House of Representatives would report back either that it found no basis for new legislation by Congress or, on the contrary, that it did find reasons for legislation with recommendation as to the laws required. The Celler report does neither. It mainly nags and scolds the Department of Justice for the way it keeps house, charges that public interest was short-changed by the consent decree, and asks that the attorney general go back into court and ask the judge to reopen the decree.

The report is not even clear as to just what the Celler group thinks the attorney general should ask under such circumstances. There is an inference that the Justice Department should have either held out for an absolute divorce of Western Electric from the Bell System, or have let the case go to trial on the original complaint. But, the Celler report does not say so, in so many words, by way of conclusion. It recommends, as follows:

"In the opinion of the committee the present decree not only fails to effectuate the purposes of the Sherman Act, but was arrived at without adequate consideration of the issues by those responsible for the protection of the government's interests. From the time when AT&T first voiced its objections to standing trial, no top-level official of the government appears to have given these issues the serious and searching consideration which their gravity demanded in the public interest. In face of this abdication of duty on the part of its principal officials, it can hardly be contended that the consent of the United States, an indispensable element of the decree's validity, was in fact obtained. This blot on the enforcement history of the anti-trust laws can only be erased by those who are responsible for it.

"The committee believes that the Department of Justice should promptly move the court for relief from the decree's inadequacies."

(Please turn to page 62)

REA Approves Two Arkansas Loans

More than 1,000 Arkansas subscribers will receive new or improved telephone service as the result of two loans approved to Arkansas borrowers by the Rural Electrification Administration during the week of May 18, the U. S. Department of Agriculture announced on May 26.

Wickes (Ark.) Telephone Co., Inc.; $561,000; May 19.

The new borrower plans to use these funds to furnish initial service to 680 subscribers and to improve service for 299 existing subscribers. Sixty-five of the subscribers who will get improved service now receive dial service from the Hatfield Telephone Co. which the borrower plans to acquire and integrate. The remaining 234 existing subscribers receive magneto service through the borrower's five exchanges at Cove, Gillham, Grannis, Vandervoort and Wickes.

New automatic central offices are scheduled at Cove, Gillham, Hatfield, Umpire and Wickes. The Grannis and Vandervoort exchanges will be eliminated and those communities served by the Wickes and Cove exchanges. The new Wickes building will provide space for headquarters as well as central office facilities.

H. N. Odum is president and W. L. Odum is manager of the Wickes Telephone Co.

•

Pea Ridge (Ark.) Telephone Co.; $30,000; May 21.

These and funds from a prior loan will enable the borrower to expand its automatic facilities in order to furnish initial service to 90 subscribers. In addition, the borrower proposes to remodel the Pea Ridge headquarters-automatic central office building.

The two loans to this borrower total $410,000 which will benefit 933 subscribers in Arkansas and in Missouri. The completed system will consist of the Pea Ridge exchange which now serves approximately 270 subscribers and the Seligman exchange which is scheduled for cutover shortly.

Floyd T. Wilson is president and manager of the Pea Ridge company.

Think Ahead! Why Leave the Future to Chance?

Advance Planning Means Facility Planning and Corporate Planning

by F. E. NORRIS*

THE TITLE of this paper—"Think Ahead—Why Leave the Future to Chance?"—is intended for what it sounds like—a challenge. We in the General System have been thinking a lot lately of what kind of a future we might *create* for ourselves. And perhaps some of our thoughts may be of interest and value to others.

My title (in the General Telephone Corp.) is vice president—planning and development. The word "planning" relates to that part of my work which has to do with "Thinking Ahead." There are a couple of things about my position which are rather unique. One is that my effort concerns the *future* and therefore doesn't help meet today's payroll in any way. The other is that I am given *time* to think about the future. I mean by this I'm not burdened with current problems of any kind. I am not even burdened with an organization of people to direct. As I say, these things are rather unique.

This, in a way, explains what Long-Term Planning or Advance Planning means. But the definition needs some further explanation. In this, it might be helpful if *Advance Planning* were divided into two categories—(1) Facility planning, and (2) corporate planning.

Corporate Planning Vital

Facility Planning is the kind of thing that we in the telephone business have done all along. When we practice this kind of planning, we take actions today which will fit into the requirements of tomorrow. Included in this would be such things as locating wire centers, providing cable capacity for future growth, constructing our buildings in such a way that they can be expanded to meet future needs and so forth.

As I say, this is Facility Planning. It is the kind of planning which, when properly done, results in the *wise* expenditure of capital. It is vitally important. We must constantly strive to improve our techniques in this area. But Facility Planning is not what I want to talk about.

What I want to talk about is the other kind of planning—*Corporate Planning*. This is the kind of planning that has not received too much ballyhoo or attention in the past. Maybe we were neglectful.

Corporate Planning, as I use the term, is not intended to apply only to the corporate financial structure—that is, to the amount of bonds or debentures we issue or to the common or preferred stock. Nor does it refer only to the top organization structure—that is, the line of authority—although all of these things are products of Corporate Planning.

Corporate Planning, as I will refer to it, pertains to determining what our company's future could be and a course of action of what we are going to do about it. I mean by this, that if we know what potential business can be developed in the areas we serve, we can decide whether we want to attain that potential and then what we have to do is actually attain it. The assumption, of course, is that our potential development is greater than our actual development will be unless something special is done to reach the po-

*Mr. Norris is Vice President—Planning and Development of General Telephone Corp. He prepared this paper for the recent convention of the Kentucky Telephone Association. He was unable to be present and it was presented by Gordon Saunders, Operating Vice President of General Telephone Co. of Kentucky.

tential. And, let me explain this. A company may have been experiencing a growth in telephones of such and such a percentage a year. If that company were asked how many telephones it would have "x" years from now, it would, if past general practice were followed, supply an answer by projecting the rate of past growth. The question I raise is this: Whether such a projection does indeed give a reasonable measure of the potential telephone requirements in the served area? I suggest not, or at least frequently not.

More to It Than Projection

Such a projection might be reasonable if we have done *everything* in the past that could be done, or that we ought to do to develop our business. But, I believe that there are few exceptions of where we have done all we could or should do. We have been motivated more by what was *demanded* of us than by what the public would like to have. I mean "would like to have" if given an opportunity to make their wants known in a sympathetic atmosphere. If we are to learn what our potentials are—that is, what potential service is desired — it will be necessary for us to make some changes in our concepts of how the public should be served. In other words, as I see it, we must find out what the public wants and make some effort to see that they get it. This, of course, is not an overnight job.

But, in determining our potential, we probably will have to find an entirely new approach to forecasting the future development. The old method of projecting past experience, as suggested before, will not do. For one thing, we should have a knowledge—and this can be attained without too much difficulty —of the number of *households* in our territory and how many of them have telephones. We might next ask ourselves how many of them *should* have telephones. I don't mean at once, naturally. I mean over a period of years if we employ good marketing and sales concepts. Here is a clue of what the future could hold in store. In 1936, 31 per cent of the households had telephones. This increased to 78 per cent — more than double — by 1958. This strongly suggests there is more room for a continued upward movement. And, bear in mind these percentages are for the nation as a whole—including Bell.

The telephone density in the Independent areas, as a general rule, is somewhat lower than the national average. This only means that we in the Independent field have much room to grow—and we should be able to grow faster than Bell in the future for this reason. I have no doubt we can and will outpace them. And, I have full appreciation of the many problems we have had in order to get where we are today and of those that we can expect in the future.

F. E. NORRIS

Multiple Telephone Homes

The economic atmosphere of the future promises to be most conducive to increasing, not only the number of homes having telephones, but also to increasing substantially the number of telephones in the average home. Increasing the number of telephones in the average business establishment also can be expected to result from a continuously improving economic climate.

Much has been written and there have been some fine analyses about what is likely to happen to the national economy. I would like to give you just a few figures. These, again, are nationwide figures. Naturally some communities will exceed and some will be below the growth data I'll give you. But, I believe it is fair to interpret these figures as meaning that, in general, there is a good economic climate ahead.

Discretionary spending represents the personal income over and above that needed for the basic essentials of life such as food, clothing and shelter. This is the area of the economy which offers our industry its greatest opportunities. I think this can be seen by taking a look at what happened to discretionary spending in the past and what the estimates are for the future. In 1940, the discretionary spending stood at about 27 billion dollars. Today, it is about 180 billion dollars—*nearly seven times greater.*

By 1976, it may reach 460 billion dollars—*nearly three times the present* in terms of 1957 dollars. These are the figures of the experts.

The impact of this large increase in discretionary income on our industry will be primarily on residential service, but naturally it will have its effects on business telephone development, too.

90% Home Saturation

Business and government are expected to increase their spending in the future, although not as much as that reflected in discretionary income spending just mentioned.

The interpretation that we might place on these statements and figures is that over some period of future time —say 15 years—the income of the average household will so have risen that we should find no trouble in placing at least one telephone in 90 per cent or more of the households. And, of course, the number of households are steadily increasing.

Let me sum up this part of my presentation by saying that our (Independent) areas generally are underdeveloped now and that the future economic climate promises a much greater development in our industry than ever before.

From this point then, let us turn to some of the kinds of thinking that must go into our future efforts if we are to achieve our future potential.

In my view, the telephone industry should measure its future progress by its position in the over-all economy rather than by a comparison of the number of stations gained one time with another. To illustrate, we easily could register a station gain which would give us satisfaction. At the same time, however, we also could be going down hill as measured by the proportion of personal income paid for telephone service.

Results Astounding

When the future is looked at in the way I've generally been describing, the results are rather astounding. You may appreciate this a little more if I tell you what *our* (General's) experience has been. We have 3.6 million telephones in the U. S. today. If we projected the postwar growth—a growth which we all have held to be "unprecedented"—we would have about 7.3 million telephones by 1976. By studying our potential as I have described, we will have more than twice this number of stations—*we will have over 15 million telephones* by 1976.

The *projection* which produces the 7.3 million telephones in 1976 presumably could be attained by proceeding essentially along the lines we have proceeded in the past, that is, by "meeting

demands" together with a modicum of stimulated sales.

But, to attain the 15 million figure we must do much more. In fact, we must take a look at our entire concept about how to go about developing our business. In other words, we are faced squarely with the point I developed a moment ago, namely, that we must do some things differently. New marketing concepts lie at the heart of what must be done. In my opinion, this calls for much more than a mere determination to put more effort into marketing. This also will not produce the desired results. As I view it, it will be necessary to identify all of the things that must be done to make an effective marketing job practical. Providing facilities, of course, is one of them. But, that, as I mentioned before, is *Facility Planning*. From a *Corporate Planning* standpoint, we must identify and bring into relationship the various factors which will facilitate the marketing procedures and particularly those things which present obstacles to that process.

Many of these factors or "obstacles" are commonplace things — in fact, I doubt that any of them are new to you. But we must nevertheless have specific answers to *what* must be done, *who* is to do it, *when* it must be done, *why* it must be done, *where* it must be done, and *how* it must be done if, as I say, our obstacles and problems are to be identified and overcome.

Estimate Annual Gain

I wish particularly to emphasize the questions of "who" and "when," for these place responsibility for getting things done—they are the core of coordination. The "what" that must be done in order to gain a potential development twice as large as that indicated by projection, must be identified. It is, of course, our starting point in planning. It might be well, therefore, to illustrate the nature of the things that must be done. And bear in mind all of these things have a relationship to the time scale—that is, we must decide not only *what* must be done, but *when* it is to be done.

The first thing we will want to know about after a forecast, based on potential, is completed is this: How many stations must be gained each year—not the average year—to get from where we are to where we estimate we should be, say 15 years hence? Then, we will want to know how much capital, again by years, will be required to accomplish the growth as forecasted. Then, we will want to have some estimates about such other things as what the personnel requirements of the different classifications will be, that is, how many engineers, craftsmen, management employes, etc., will we need at different time periods.

Other factors, also, will likely develop which will require attention, such as the need for upgrading from party lines to main lines, particularly in the base rate areas, and the unloading of rural area lines. Further, we may find that certain types of new apparatus will be required, such as telephones designed especially for bedrooms, especially for kitchens, for workshops, etc. For larger homes, simplified communicating systems may be indicated—and the same also for farms.

Our inquiry as to what must be done to achieve our objective may lead us into such areas as the need for new training programs and possibly some new type of organization structure—a type which can be adjusted without causing disruptions as the company grows. We may also find it desirable to make a careful analysis of our tariffs and act to bring them into line with the new concepts for developing the business. To illustrate this last point, we may want to consider *package* rates instead of unit rates we now use. This, in turn, suggests that we should keep the commission people informed of our aims and plans, not only to gain their sympathy for what we are trying to do, but also to get their advice and help, because all that we are talking about is in the public's interest.

When all these things I've been talking about are evaluated—each in relation to the other—and when the results have been set down and approved in writing, we have a formal long-range, corporate plan.

Plan Must Be Flexible

In such a plan, it is apparent that many assumptions are needed. The value of the plan, therefore, will naturally depend upon the maturity of judgment that goes into it. Such judgment, however mature it may be, still cannot be infallible. It follows, therefore, that the plan, once it is made and becomes the general guide for the future, must also be regarded as a flexible device which can be changed to correct errors and to incorporate new facts as they appear.

What is the validity of a long-range plan based upon so many assumptions? This is a good question. But, what is the alternative to having such a long-range plan?—also a reasonable question. And, there are, I think, reasonable answers to them. It seems to me, for example, to consider with mature judgment all the things that *might* affect our business in the future and to lay plans to guide us through the myriad of problems these "things" imply, is much more preferable to having no plan whatever. We are much more likely to be surprised by events after they occur if we have no plan at all. Good management does not accept "surprises" as unavoidable.

In order to make a point, I wish to re-emphasize the fact that we are assuming a potential development considerably in excess of what is demanded of us, or is indicated by projection of the past. If we can assume, and I strongly feel that we should so assume, that it is in the public's interest to strive to attain the potential because that represents what the public wants, we then come face to face with the vital spark of long-range planning.

Self-Discipline Needed

This "spark" is doing what we *ought* to do instead of what we, for all practical purposes, are *made* to do. This requires a high order of self-discipline. It means that the problems of the past which have seemed all but insurmountable, must be anticipated with the confidence that they can and will be timely solved. Even more than this. To attain our potential we will, in effect, find that many times we must intentionally *create* the kind of situation we have tried to avoid in the past. For example, we may anticipate creating an extraordinary engineering work load, whereas we always have been short of engineering help. If we will look ahead to our engineering hour requirements as well as to the volume of engineering work to be done, we naturally will bring both into focus.

What this, of course, suggests—and I think it is plain enough to see—is that in making a long-range plan we must identify all of the factors related to a given objective and place values on them, so that the responsible people can see what is expected of them as well as of their colleagues. Thus, a long-range plan becomes a formalized document—one which lends itself to close coordination over a long period of time.

Everything expands under the concepts I've been discussing—including our ordinary business *risks*. Let me explain. We used to have just one or two models of black telephones. There was little to get out of style. Obsolescence was not much of a factor. Today we have color—which is quite a perishable item in the public fancy. This, together with more instrument models, means an increase in obsolescence. I shall not pursue this through its many ramifications as I believe it sufficient to make the point that stability of investment in customers' products tends to lessen as we lean toward

(Please turn to page 64)

Do you want a ten-cent dollar?

By ROSWELL MAGILL

Chairman, Tax Foundation, Inc.

As condensed in *The Reader's Digest* from *The Saturday Evening Post*

Our fumbling fiscal policy has carried us a frightening distance toward disastrous inflation. We *must* solve this problem, and solve it quickly

THE UNITED STATES presents a curious spectacle today. Here is the richest country in the world either unwilling or unable to raise enough money in taxes to pay its current governmental costs. Our federal deficit this year is expected to be about 12 billion dollars—*considerably more than the total expenditures of the federal government 20 years ago.*

For the first time in our history, and just when we are trying to prove that our economy will outperform that of the Communist states, Congress has had to raise the total debt limit twice in the same year: first to 280 billion dollars, then to 288 billion.

Sen. Harry F. Byrd has estimated that in five years, at expected spending levels, the debt will reach 350 billion dollars. This is a fantastic $6,250 for every American family—more than the average family's annual income. Are we headed downhill on the slippery road to disastrous inflation that so many countries have traveled before: the road that leads to a 25-cent, 10-cent, one-cent dollar?

In 20 years, the value of the dollar has been cut in half. Just since the end of World War II the dollar's purchasing power has been reduced by 23 cents. If fumbling governmental fiscal policy should encourage that deterioration to continue, in 25 or 30 years our present 48-cent dollar might be worth only a dime.

What can be done to get the government back on an even fiscal keel?

Will Tax Increases Help?

(1) Should we increase taxes?

Many citizens, convinced that they are overtaxed already, cry for tax reduction. The present tax burden, including all hidden and direct taxes, takes about one third of the average person's income. He works 12½ hours of his 40-hour week just to pay for government.

On a daily basis, the tax burden is even more depressing. The Tax Foundation has shown that in an eight-hour day, the average $4,500-a-year man must work for the government 2 hours and 29 minutes.

By contrast, to pay for food he works one hour and 39 minutes; for housing, one hour and 25 minutes; for clothing, 37 minutes.

Tax System Has No Stretch

A major difficulty is that our principal taxes cannot be raised to produce much more revenue without wrecking the economy. Our tax system is like an old rubber band, which has been stretched so long and so often that there is no stretch left in it.

Since enactment of the income tax in 1913, our system has consisted fundamentally of: the income tax, which now produces 79 per cent of total federal revenue; a series of special excise taxes, producing 6 per cent of total revenue; taxes at very high rates on sales of liquor and tobacco, producing 7 per cent; and taxes on transfers of property by gift during life, or at death, producing 2 per cent.

To raise an additional 12 billion dollars (the amount of this year's deficit) from the present federal income tax would require the confiscation of everyone's taxable income in excess of $4,000, or an increase in the corporate rate from the present 52 per cent to 82 per cent.

The result of income taxes of that magnitude would be economic chaos. They would destroy all stimulus to risk-taking, new investment and business expansion—the most potent forces in the economic development of our country.

Taxes Other Than Income

A few hundred million dollars could be raised by increasing gift and estate taxes. Since the taxes on liquor and tobacco already approximately equal the cost of the product, they cannot be used effectively to produce much more revenue.

The rates of our existing special excises could be raised a little, but we have found that some excises, such as the taxes on freight and passenger transportation, so discourage activities we want to foster, that Congress has had to repeal them. The latest revi-

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sion of the excise tax laws resulted in an estimated loss, not a gain, in revenue.

So, raising taxes is not a very acceptable solution.

Can We Cut Expenses

(2) Can we solve the problems by reducing governmental expenditures? Just what expenditures can be cut?

In the current fiscal year ending June 30, 1959, the federal government will spend almost 80 billion dollars.

Although defense spending, estimated at 46.8 billion, is obviously the largest part of the budget, it is by no means responsible for the recent big increases.

In the last five years *non*defense spending has jumped by a startling 12½ billion dollars—from 20 billion dollars to more than 32 billion. The biggest increase in this area has been in the farm programs, which have risen by 3¾ billion dollars and now amount to 6½ billion dollars per year.

Federal spending on housing and commerce has gone up three billion dollars; labor and welfare expenditures, up nearly two billion; veterans' services and benefits, up 900 million.

Which Is the Greatest Good?

Now these civil expenditures do not represent pure Congressional wastefulness. When, for example, Congress increased the Social Security payments (and the taxes to pay for them), Congressmen had an eye on the forthcoming elections: they calculated that the number of citizens who wanted to see larger payments was greater than the number who would resent the increased taxes.

We are a big nation of enormous wealth; why shouldn't we live the good life? Let's have guns and rockets, but let's have butter, too—lots of it.

And let's have lots of roads. The cost of the federal highway program, not now included in the budget, jumped from 586 million dollars in fiscal 1954 to an estimated 2½ billion this year.

Last year Congress suspended the pay-as-we-go feature of this program, ensuring even greater costs in the future. We all want good roads; but do we have to have them so quickly that we must pile up more debt to get them?

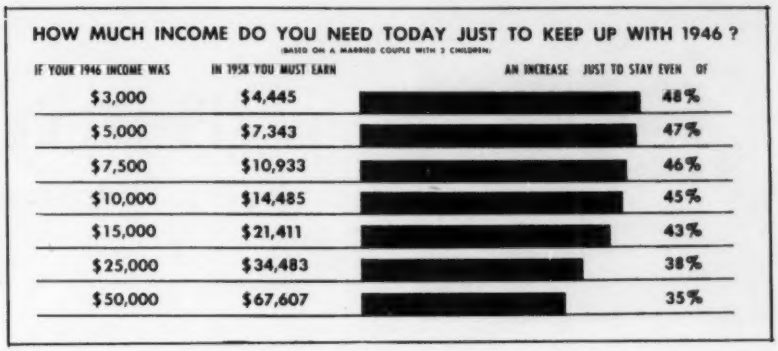
Civilian Payroll

Furthermore, is it essential that we have some 2,250,000 civilians on the federal payroll at a monthly cost of about one billion dollars?

Is it necessary to pay federal employes an average of $90 a week while the average in private industry is $78?

This kind of spending has increased the cost of federal payrolls in the past ten years from $162 per American family per year to $255 per family. Isn't it time for us to distinguish *essential* expenditures from *desirable?*

Under present world conditions, it is hard to justify a reduction in military spending. But we might be able to hold national security costs at the present level. This would require that money for new programs and weapons should come from cutbacks in expenditures for other military projects. A sizable sum was saved this way in the present budget.



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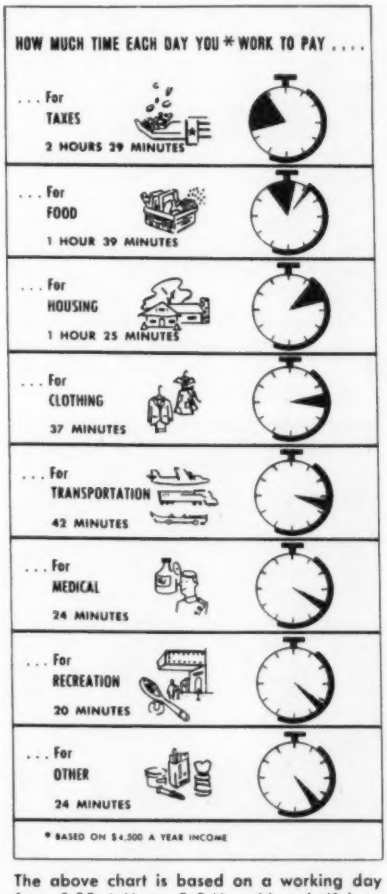

The above chart is based on a working day from 8:30 A.M. to 5 P.M., with a half hour out for lunch.

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Where Real Cuts Can Be Made

It is primarily in the area of nondefense spending that Congress might make real cuts. There is nothing inevitable about the 6½ billion dollars to be spent for agriculture this year, nor the nearly four billion for housing and commerce.

The farm price-support program (changed for the better in 1958) has piled up unnecessary surpluses at the taxpayers' expense. There are now in storage, government-owned for every American family, 24 bushels of corn, 19 bushels of wheat, 4¼ pounds of dried milk, 3½ pounds of cheese and 2¼ pounds of butter.

This is just not reasonable. Nor is it reasonable that more than half the patients in veterans' hospitals are being treated for nonservice-connected disabilities.

Nor is it reasonable that the federal government should continue to add to the 100-odd federal-aid programs to states that can better finance and adminster their needs locally.

President's Recommendations

The President in his budget for the current year made a series of recommendations which held hope for lower expenditures. Mainly, his proposals were of three types: reduction in some of the federal-aid programs, largely by the transfer of entire programs to the states; limitations on the extent of federal loans and loan guarantees; curtailment of direct-spending programs.

In general, Congress ignored these proposals. In some instances it moved in the direction of *greater* federal participation in local projects.

Thus, instead of eliminating a program of federal aid for local sewer

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THE Plant Man's Notebook

BY RAY BLAIN, TECHNICAL EDITORIAL DIRECTOR

WE HAVE received a most interesting letter from D. P. Bradley, of the Postmaster-General's Department, Melbourne, Australia. It reads as follows:

"I have just read your comments in the December 20 issue of TELEPHONY on the use of a sidewalk-mounted cross-connecting cabinet by the General Telephone Co. of California and thought that you might be interested to know that we have been using this idea on a large scale in Australia for some time now.

"We first introduced a small cabinet with 120-pair total terminals in 1932 for use on distribution cable. Then in 1935, we introduced a large-size cabinet similar to the one you described. The great advantages of cabinets, we find, are that they allow effective occupancy of cables approaching 100 per cent and that they substantially cut re-arrangement costs.

"All distribution cables are fed from the small-size cabinet (which we call pillars) and the large sizes are installed according to circumstances at such places as the junction of main and branch cables, the location of proposed new exchanges, points of bad congestion on old cable runs, etc.

"The sizes we currently use are 180-pair (being superseded by 250-pair) for distribution cables and a 900-pair and an 1800-pair for main cables.

"Our original large-size cabinet was practically identical with the one shown in your photo, the only point of difference being that the tag strips were vertical and not horizonal and the right angle bend in the cable is avoided.

"I might say from our experience that traffic vibration will cause failure of lead cables installed in the way shown in the photo. We also find that condensation of moisture is a problem in ventilated cabinets when the RH is about 70 degrees F.

"We have recently introduced a new standard cabinet of which we feel rather proud." (EDITOR'S NOTE: This new cabinet is shown in the accompanying photographs.)

"It consists of a cast aluminum body, cover, and cap in which can be mounted up to nine 100-pair strips of terminals complete with PILC tail for joining to street cable. The cabinets are equipped with extra strips of terminals, as the need arises, up to the ultimate capacity of 900 pairs. The strips themselves are made by fanning out the paper insulated pairs, sweating tags on to the ends, forming the tags into strips, and casting epoxide resin over the whole assembly. The resin forms both the seal on the paper cable, the insulation for the tags, and the structural member of the unit. The epoxide unit holds 30 psi continuous air pressure, and with weather conditions outside the cabinet at 70° F. and 70° RH the IR between any one tag and all the others joined together to the cable sheath is at least 5,000 megohms.

"The whole assembly is cylindrical in form, so that the cable joiner can work at it from any face. The cylindrical form enables us to use a rolling synthetic rubber-ring seal which results in the whole assembly being completely air-tight. The unit is compact and occupies much less footpath space than the old design. It can be mounted inside a manhole, if necessary.

"We have had these units in service now for about 18 months, and they have proved particularly successful as a design and much cheaper to make. The aluminum portion costs about $120 and the 100-pair strips cost $45 each. Installation costs are modest. Further details can be had from H. M. Fitzpatrick, 114 Russell Street, Melbourne, Australia, who holds the provisional patents.

"There are many keen readers of TELEPHONY here in Australia, particularly of your column, and we wish you would pay us a visit some time. In fact, we were disappointed that your recent trip to Japan, Philippines, etc., didn't extend a day's flight south to Australia.

"If you do come here, you will receive a warm welcome from the outside plant engineers in the Postmaster General's

LEFT PHOTO: Sidewalk pedestal closed and airtight. RIGHT PHOTO: Sidewalk pedestal open showing cable strips.

Department and will probably find something of interest on the job, though our operations are small-scale by your standards. We have about 2 million telephones installed, and a little over one million channel miles of trunk circuit. We do have our problems, however, and some of the solutions might interest you."

This writer has always cherished a desire to visit Australia as we are certain that it is a mighty interesting country. Furthermore, we are also sure that the telephone people there are doing a wonderful job, and that we would be able to learn many new things from their experiences. On our trip through the Far East last year, we traveled on a very tight schedule which did not permit any side trips.

It is sincerely hoped, however, that on some future trip we shall be more successful and will be able to visit our good telephone friends from "down under."

•

We are told that every time a man puts a new idea across, he finds 10 men who thought of it before he did—but they only thought of it.

•

Recently, in the Washington, D. C. National Airport's main terminal, we counted a total of 22 colored hanging handset type telephones. These telephones are connected on direct lines to the PBX switchboards in nearby Washington and Virginia hotels and motels.

Mounted near most of the telephones are illuminated pictures in color of the motel and/or typical rooms.

These telephones are located near the baggage rooms and are convenient for travelers to make a room reservation while waiting for their baggage. This is good business for the hotels and motels, the telephone company, and a real service to the traveling public.

•

Experiments in machine translation, which the National Bureau of Standards has been performing for the Army Office of Ordnance Research, now point the way to practical production of English text from Russian technical literature.

A translation scheme recently developed instructs an electronic computer to weld together the English correspondents of the Russian words in a given text to make a meaningful reproduction of the intent of the original sentence.

•

The best place to find a helping hand is at the end of your arm.

Plant Man's QUIZ

By RAY BLAIN, Technical Editorial Director

Q. Do you know how the static system is used to pressurize a cable system?

A. Back 30 years or more ago, the first cables were pressurized under the static or periodic system. With the use of this system, cables were first made gastight and then the gas pressure source, nitrogen, applied.

When the desired pressure level was attained, the gas source was disconnected and removed. This system produced good results and satisfactory pressures were maintained, often for several months before recharging became necessary.

The cable, however, required extensive advance preparation to make it gastight. Frequently, it cost as much as $300 per mile of cable to prepare it for pressurization. The high cost of cable preparation and maintenance to keep the cables gastight, the costly fittings required, and expensive nitrogen, were warranted by the importance from a service standpoint of the high revenue producing toll cables which were the first cables to be pressurized under this system. These cables were easily adaptable to this method of pressurization because of their large diameter, low pressure drops and the lack of distribution terminals.

Today, very few cables are pressurized by static or periodic systems. They have been supplanted by continuous feed pressure systems employing either cylinder nitrogen, or air compressors coupled with drying units, as the pressure source. These systems supply a continuous stream of gas or dry air under pressure to the cable plant. It is not absolutely necessary under this method that the cables be completely gastight.

In fact, the smaller leaks are ignored. Even the larger leaks do not require immediate attention since cable pressure systems are designed so as to provide the detection of a leak soon enough after its occurrence, so that the economies of delayed maintenance can be realized while at the same time the cable is protected until the sheath break is repaired.

The development of the refrigerator compressor air dryer in the last several years has provided the telephone industry with a high capacity pressure source furnishing dry air at rates low enough to permit a much higher gas consumption loss through leaks per mile of cable than was possible with cylinder nitrogen. With this combination of high capacity and low rates, entire exchange cable systems can now be pressurized, and at a very low cost.

•

Q. What do you think is the most economical method of converting an automatic exchange to 2-5 numbering when digits must be absorbed?

A. The most satisfactory method to use will depend to a great extent upon local conditions. In most cases, the universal digit absorber fills the need of switchboards of earlier design for adding digit absorbing features economically. Installation requires very little time or work. Two separate units are available, depending on the particular office code, or codes, to be absorbed.

These units will absorb and cut through on any combination of digits, regardless of numerical order or repetition. The absorber fits into any stage of the switching equipment: selectors, connectors, trunk repeaters, or any stage that has a pulse lead to follow the calling dial pulls.

Full protection is given on 7-digit or 2-5 dialing although it may not be required locally. Future code changes are easily handled by a simple strap change in each unit of the absorber. Likewise, an incoming toll operator may bypass each unit if required.

•

Q. Do you know of any proof that plastic sleeve dampers on open wire telephone lines reduce the vibration damage to the wire at the insulators?

A. We are advised that approximately two million polyethylene sleeve dampers have been installed in midwest REA telephone plants on 0.080-inch Copperweld and 0.109-inch steel line wire. These have been in service as long as two years with no conductor failures due to wind-induced vibrations.

"Dynamic Concern" Needed to Solve Problems, Illinoisans Told

By R. C. RENO

PARAPHRASING a statement by the editor of *Changing Times* that instead of business leaders worrying about their problems, they should substitute "worry" with "dynamic concern" over the problems, K. L. Schroeder recommended to delegates at the convention of the Illinois Telephone Association that telephone industry leaders adopt the same philosophy in solving the industry's difficulties.

Mr. Schroeder, vice president of the Northwestern Telephone Co. of Freeport, Ill., is president of the Illinois association, whose convention was held Apr. 20 and 21 in Peoria.

In his annual address, which opened the convention, he listed several areas to which telephone company management must give dynamic concern—(1) federal excise taxes, (2) operator exemption in the federal Wage-Hour Act, (3) consumer buying trends, (4) fair and adequate rates, (5) inflation, (6) labor-management relations, and (7) employe relations.

Mr. Schroeder recommended that, even if the industry is unsuccessful in bringing about the repeal of the federal excise tax on telephone service this year, it should continue this effort in the future.

"There is no place for apathy in our approach to the repeal of the telephone excise tax. We can and must get the job done. If not this year, let's resolve to work longer and harder next year," he said.

Regarding the industry's concern over inflation, Mr. Schroeder agreed that, in some areas, there is little an individual or a telephone company can do to combat inflation. "But that does not relieve us of the responsibility of showing concern and doing all we can about it, each in his own way.

"By the same token, we should concern ourselves with the problems that inflation begets and make such adjustments as are necessary to maintain public approval for our right to exist as free enterprise Independent telephone companies," he declared.

He said this is another case where letters to congressmen and senators, demanding less government spending, will assist them in evaluating the wants of the people. He continued:

"There are other ways we can fight inflation. We can use our best efforts to hold wage increases to minimum requirements, and not fall into the habit of consoling ourselves that increased costs may be passed on to the public. We should be alert and ready to utilize new methods, materials, and machines in our operations and take advantage of savings that can result from their use. Curtailing unnecessary expenditures and shopping carefully for price and quality are also preventive measures.

"On the other side of the coin, if inflation is inevitable, borrowing to provide for plant replacement or expansion, for dial conversion and other capital expenditures could be your best hedge. In other words, plant additions will cost less today than in the future and the repayment of debt will be with dollars of less value than today's dollar.

"It seems to me that a program of public enlightenment on the effects of inflation on our companies should be carried out, whether or not you require plant additions or are already 100 per cent dial. I am sure we can all improve our communications with the public. Such a program should result in a better understanding of our problems and greater acceptance of rate increases when they become necessary."

Mr. Schroeder urged his listeners to write to their Congressmen opposing the proposed $1.25 minimum wage rate and the elimination of the operator exemption in exchanges under 750 stations from the Wage and Hour Act. For his own company, he said, if these proposals become effective, it would cost in excess of $150,000 a year—an increase of about $8.00 per station per year.

On the subject of labor-management relations, Mr. Schroeder summed up his concern over the current difficulties between labor and management with the following observation:

"I believe in an honest and enlightened relationship with labor. When negotiations are carried on in an honest, sincere manner, a mutual trust and understanding of each other's problems naturally follows. We must show labor, and get its acceptance of, the economic facts of business. Labor does not gain when a company is forced to go beyond its financial ability to meet its demands. Permanent gains are only obtained when productivity increases, and the company can incorporate the cost of benefits into its earning capacity."

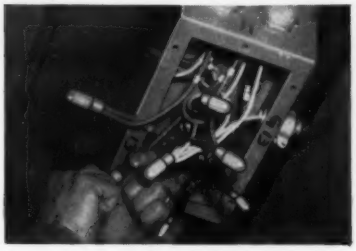
Stating that consumers, on a long-range basis, will not be in a mood to go on a spending spree, he emphasized they will need to be persuaded to buy, and telephone services must be attrac-

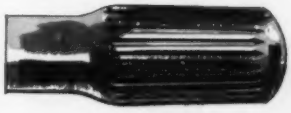
(Please turn to page 30)

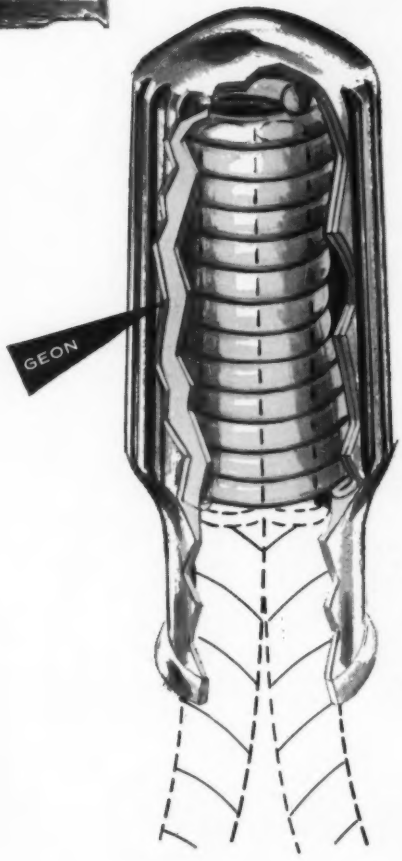
Another new development using

B.F.Goodrich Chemical *raw materials*

"Scotchlok" Brand electrical spring connectors, designed to give tons of holding pressure in a fraction of an ounce, are made by Minnesota Mining And Manufacturing Company, St. Paul, Minn., using caps molded of Geon by Minnesota Plastics Corporation, St. Paul. B.F.Goodrich Chemical Company supplies the Geon polyvinyl material.







High holding splices with a twist...

NEW CONNECTORS ARE CAPPED WITH GEON

Just three color coded sizes of this "Scotchlok" Brand electrical wire connector can splice over 400 wire combinations from 6 to 18 AWG solid and stranded. It consists of a bell-shaped steel spring in a hard steel shell, all fitted into a cap molded from Geon polyvinyl material.

Geon makes a tough and flexible cap. It has a long, conforming skirt to prevent flashover. And since Geon can be precision-molded, there is a knurled surface to provide finger grip, making it easier to twist the connector onto wire ends. Geon can also be molded in colors—each of the different sizes has its own color code.

Geon also provides ideal electrical characteristics. And it offers good resistance to abrasion, weathering, and heat, as well as non-flammability and low-temperature flexibility. In addition, Geon is inert to oil, chemicals and solvents.

The new U.L.-approved connector is providing permanent high-pressure splices for fixture and appliance applications, as well as for larger size wire in homes and industry. It's an example of the way that Geon makes possible new products, or new applications of existing ones. For more information, write Dept. AV-3, B.F.Goodrich Chemical Company, 3135 Euclid Avenue, Cleveland 15, Ohio. Cable address: Goodchemco. In Canada: Kitchener, Ontario.

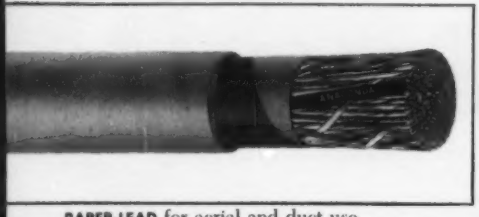
B.F.Goodrich Chemical Company
a division of The B.F.Goodrich Company

B.F.Goodrich

GEON polyvinyl materials • HYCAR rubber and latex
GOOD-RITE chemicals and plasticizers • HARMON colors

See the Man from Anaconda for Paper-lead Telephone in the type and size you need...

Choose Anaconda Paper-lead Telephone Cable in the type you need.



PAPER-LEAD for aerial and duct use.

POLYETHYLENE PROTECTED LEAD CABLE offers high resistance to corrosion and electrolysis.

JUTE PROTECTED LEAD CABLE resists corrosion and electrolysis.

BURIED TAPE ARMORED LEAD CABLE (2 layer steel) for areas subjected to low-frequency induction from nearby power lines.

GOPHER PROTECTED LEAD CABLE (1 layer steel) direct burial cable where mechanical protection is needed.

ANACONDA PAPER-LEAD TELEPHONE CABLE being installed near Harold, Kentucky.

Cable from 6 to 2121 pairs—

. . . when and where you need it!

Anaconda offers you everything you need in paper-lead telephone cable—produced in a new, modern plant devoted exclusively to telephone cable products. Telephone experienced personnel who understand your problems utilize the latest, most exacting quality control standards—to produce quality telephone cable. And order service is prompt and efficient wherever you are because of a national network of distributors, Anaconda sales offices, and mills.

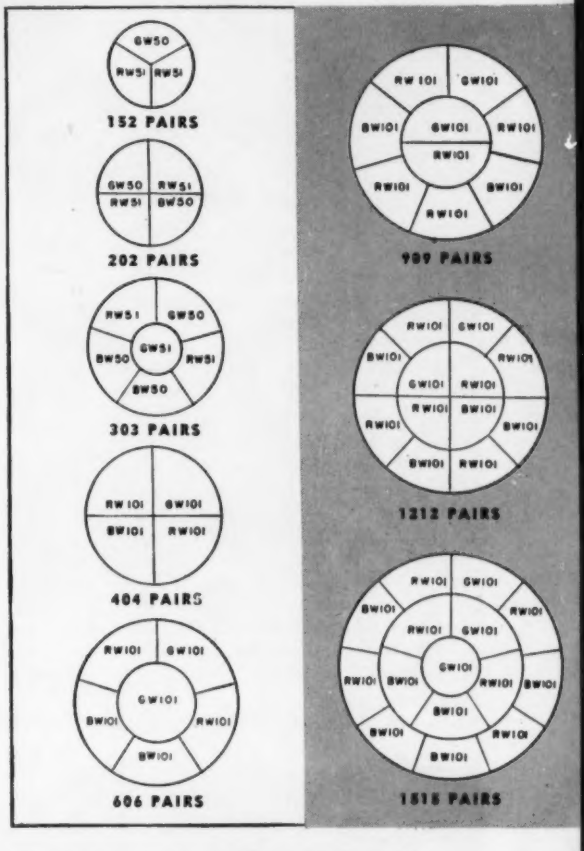
Call your Anaconda distributor or the Man from Anaconda for your paper-lead telephone cable needs. Also—write for new Catalog DM-5771. Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.

Shown here is a typical unit construction for 152 pairs through 1515 pairs, No. 24 Awg. Following constructions also available:

No. 19 Awg	6	through	455 pairs
No. 22 Awg.	11	"	909 "
No. 24 Awg	11	"	1515 "
No. 26 Awg	11	"	2121 "

The number in the assemblies denotes the number of pairs in the unit. The letters refer to the color of the outside pairs of the unit. GW, green-white; RW, red-white; BW, blue-white. The units are further distinguished by a color-coded binder string.

Choose Anaconda Paper-lead Telephone Cable in the size you need.



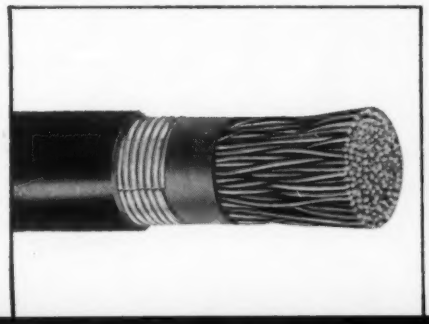
UNITED STATES INDEPENDENT TELEPHONE ASSOCIATION

PHONE THE MAN FROM ANACONDA®

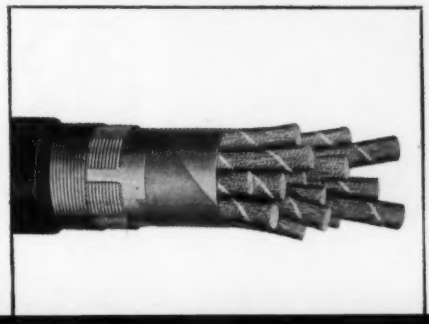
The Independent Manufacturer to the Independent Telephone Industry

FOR TELEPHONE CABLE

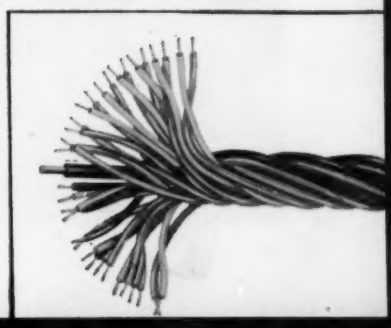
ALPETH—Polyethylene-insulated, low-resistance aluminum shield, polyethylene jacket.



STALPETH—Paper-insulated, aluminum shield, steel tape, polyethylene jacket.



DISTRIBUTION WIRE—rural [#19], suburban [#22] and urban [#24].



tive and offered at prices consumers deem just. He stated that a market does and will exist for telephone services and telephone companies should be concerned about adopting merchandising and sales programs in order to get their fair share of the consumers' dollars.

"Merchandising has become the key to profits for many of our companies and I am sure it will play a greater part in tomorrow's success or failure. Through research and development, our manufacturers are continually providing us with new and improved communication equipment. But, are we making the most use of the tools we have been given?

"I believe our merchandising efforts must be more closely attuned to the needs and desires of our customers. As competition increases for consumer's favor, we will surely have to cater to his wishes," Mr. Schroeder predicted.

"Good employe relations is another area in which the industry should show dynamic concern. A thorough understanding of your company and its problems will assist in attaining better relations, greater loyalty and increased production on the part of all employes," Mr. Schroeder said.

"You might be surprised to learn what employes sometimes think of the company for which they work. Many of them are fantastically misinformed about the profits their company makes. Many give management little credit for raising the standard of living. Some of us fail to recognize the fact that employes are "partners" in the fortunes of our company and as such they have a basic right to have the facts about the business," he stated.

Commenting upon the public's opposition to rate increases, brought about by growing inflation, Mr. Schroeder stated his philosophy of rate-making to which he felt all companies should give concern. He outlined this policy as follows:

"I have a philosophy on rate matters that I believe should serve well as a guide to improvement in public acceptance of the cost of providing telephone service. I believe a company must provide good telephone service to the public. I believe a company should keep its public informed of its plans, problems and needs in an honest, clear-cut manner. I believe a company should maintain two-way communications with the regulatory commission and honestly endeavor to meet its responsibilities to the commission, to the public, to its employes, and to those whose money is invested in the business. I believe a company should operate in an efficient and economical manner, consistent with sound practices and with proper maintenance of its plant.

"Finally, I believe a company should not delay seeking rate relief when the need is determined. A small rate increase may eliminate the need of a larger increase later and in any event a smaller increase is more palatable than a larger one."

"Remember, a better term for 'worry' is 'dynamic concern.' By its application to our problems, steady growth and secure strength will surely encompass the telephone horizon," Mr. Schroeder concluded.

The association secretary, J. D. Hardy outlined the activities of the association in his annual report. He stated that in the 15 years that he has been secretary, the number of telephone companies operating in Illinois had decreased from 400 to 245. He estimated that by the end of 1959 there will be a further decrease to 225 companies.

"The operations of a great many of these companies have improved considerably. Many of the smaller ones have rehabilitated their outside plant and have converted to automatic operation, and this will continue for some time," Mr. Hardy stated.

Regarding conversions to automatic, the secretary reported that as of Dec. 31, 1958, 65.6 per cent of Independent

(Please turn to page 34)

Directors and officers of the Illinois Telephone Association. Back row, left to right: J. G. Hardy, secretary; R. A. Lumpkin of Mattoon; A. T. Renn of Chicago; G. W. Trout of Chicago (guest); Ben B. Boynton, general counsel; Don Anderson of Geneseo; Donaldson Coombes of St. Louis, Mo.; W. R. McGrew of Park Ridge, and Gordon Aller of Chicago. Front row, left to right: Daniel Schaefer of Sycamore; K. L. Schroeder of Freeport, president; Ray J. Alter of Galesburg, treasurer; Roland Schmidt of St. Jacob; B. W. Saunders of Bloomington; Russell Logue of Casey, and Leon F. Roberts of Washington, D. C.; director of information, United States Independent Telephone Association.

Photographed at the Illinois convention were, left to right: Donaldson Coombes of St. Louis, Mo., W. M. Driggs of Bloomington, Ill., and Mayme Workman, traffic editor of TELEPHONY.

AIR LIFT

for mobile teleprinter center

Interior view of mobile teleprinter center

Kleinschmidt super-speed teletypewriters provide world's fastest printed combat communications for the U.S. Army!

Taking the jolts and jars of movement by air in stride, the new Kleinschmidt telecommunications units handle *printed* messages at speeds up to 750 words a minute! Using these machines, developed in cooperation with the U. S. Army Signal Corps, information on enemy movements could move accurately and rapidly to friendly units widely dispersed under nuclear battlefield conditions. In recognition of Kleinschmidt's high standards of quality, equipment produced for the U. S. Army is manufactured under the Reduced Inspection Quality Assurance Plan. Today, the advanced commercial application of electronic communications is unlimited.

KLEINSCHMIDT

DIVISION OF SMITH-CORONA MARCHANT INC., DEERFIELD, ILLINOIS

Pioneer in teleprinted communications systems and equipment since 1911

Here's a telephone tale worth telling

It's in a current Bell System ad headlined "A Bedtime Story for Busy Mothers," from which this picture comes.

It's about the many benefits of a bedside extension phone as enjoyed by a young mother . . . the steps and time it *saves* her, the security and privacy it *gives* her. Thanks to her bedside telephone life is easier, her family is happier, and she gets more done.

It's a tale worth telling, all right, and it's being told this month in a large number of national magazines which are read by customers of every telephone company.

Not only does it sell the advantages of bedroom phones, but it describes the value of telephone service. Those are good things for all of our customers to know.

BELL TELEPHONE SYSTEM

stations in Illinois, or 443,626, were dial; 22.8 per cent, or 154,329, were common battery; and 11.4 per cent, or 77,609, were magneto.

Mr. Hardy commended the work of various association committees which have been active on industry affairs during the past year.

"The University Today" was the subject of an address by Dr. Delyte Morris, president of Southern Illinois University, located at Carbondale, Ill.

Dr. Morris likened the operations of a university to those of a telephone company in regard to providing educational facilities for a growing population, raising funds to expand and improve facilities, and adopting new methods and techniques introduced in the educational field.

Dr. Morris stated that all of the present colleges and universities cannot take care of predicted future heavy enrollments, and planning and providing for educational facilities in the years to come is a staggering problem for education leaders.

He emphasized that private and state colleges and universities must be preserved and strengthened, and that they must cooperate with one another to meet future education demands, because the best interests of the nation depends on educationally-trained manpower.

W. C. Giller of Chicago, dial equipment engineer, Illinois Bell Telephone Co., provided a look at the possible future telephone technology in a talk titled "Electronics Ahead."

He emphasized the fact that the increased pressure being exerted by today's emphasis on technical development placed a new demand on telephone management and operating people to keep abreast of changing philosophies in order to control progress and avoid confusion.

These three retired employes of General Telephone Co. of Illinois, photographed at the Illinois convention are left to right: A. L. Steber of Paxton, G. C. Rehling of Lincoln, Ill. and E. S. Slusher of Macomb, Ill.

An electronic telephone switching system, with no electro-mechanical moving parts, was described for the convention. Utilizing the micro-second speed inherent to electronic circuitry, rapid access short and long-term bulk memory devices, transistorized logic packages, and a switching network comprised of small gas-tube crosspoints, the new system introduced an all-new world of telephone switching techniques and services.

The advantages of the system included the possibilities of automation production, increased central office efficiency, space savings, reduced power requirements, and a host of new customer services.

A low current, tone ringer telephone set, designed to work with the electronic system, was demonstrated. The bell in a conventional set had been replaced with a transistorized oscillator and amplifier which, through a small plastic horn, produced a warbling "flute-like" signaling tone. The tone could be adjusted to any one of eight separate frequencies found most pleasant to the user.

Mr. Giller also revealed that Illinois Bell Telephone Co., working with the Bell Telephone Laboratories, would start a field trial of the system he had described at Morris, Ill., next year.

All companies with manual operation were urged to convert to automatic "with all possible speed and at the earliest possible moment" by Leon F. Roberts, director of information of the United States Independent Telephone Association, who addressed the convention on the subject "How Things Look From Ringside."

"Based on information given to me by those familiar with the situation, it is not known at this time what to expect as the final result of pending minimum-wage legislation," said Mr. Roberts. "We are not sure we can stem the rising tide against our switchboard operator exemption much longer. We will be in there pitching as usual with all there is in us, and we shall fight as valiantly as we have in the past, but we are by no means certain of victory. Regardless of what transpires we want to say this: We strongly urge all companies which have manual operation to convert their exchanges to automatic with all possible speed and at the earliest possible moment."

(Please turn to page 72)

This trio attending the Illinois convention are, left to right: R. H. Burfeind of Chicago; Harry A. Joslyn of Sycamore, Ill.; and Ben B. Boynton of Springfield.

POWERS *American*

SERIES TI-76 TELEPHONE INSTALLER'S BODY

FOR TELEPHONE MEN ONLY

The TI-76 Body is designed for one-trip telephone installation, maintenance, and general service work. It carries everything needed for routine or emergency jobs . . . in weathertight, pilfer-proof compartments that lock with a single key.

In addition to the seven drawers shown above, standard equipment includes shelves, racks, trays, hooks, and brackets for carrying a complete assortment of supplies.

Want details? A copy of descriptive Bulletin No. 121, with price information, is yours for the asking.

Optional equipment includes overhead rack, with brackets for ladders and/or cross arms; extension ladders; wire reel; and spotlight.

SERIES 44-CS carries a completely-equipped workshop for any telephone cable splicing operation.

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today's Highlights

of finance-taxes-business trends

by Willard F. Stanley

BOND YIELDS STILL ASCENDING: The last 30 days witnessed a considerable worsening in all bond prices, including those for new utility funded debt issues.

By about the middle of April, yields had nudged upward until double "A" rated utility bond offerings were carrying yields around 4.6 per cent.

Toward the end of that month, an issue of that quality was offered at a 4.55 per cent yield, but this relatively low yield was due to these bonds being "call-free" for a number of years, a provision which made them considerably more attractive to the large insurance companies which are important prospective purchasers for issues of this caliber.

But, coming into early May, the bond market (and the federal government bond market in particular) sagged seriously.

No specific reasons can be assigned to this development. With federal bond yields at current high levels, it seemed unlikely the Treasury would "rock the boat" by attempting to "stretch out" debt maturities, through inclusion of any large amount of long-term debt in its near-term forthcoming offerings.

But, fear existed (and still exists) of a further rise in rediscount rate by the federal reserve, since all indications point to increasing demands for credit to finance the ever-growing business boom. Significant was the increase in interest rate on prime (highest quality) loans of commercial banks to a 4½ per cent level during the past few weeks.

From Apr. 20 to May 25, utility funded debt offerings were substantial, but not excessive; while industrial funded debt brought to market was quite meager.

Whatever the causes, by mid-May, two double "A" rated utility issues were offered on a 4.95 per cent basis, with bond offerings of lower ratings carrying more than a 5 per cent yield.

In the last 10 days of the period mentioned, a moderate rally in bond prices occurred. But, this was merely a technical reaction to an oversold condition in the bond market. Both federal and utility bonds shared in this recent upturn, but yields still stand materially above their levels 30 days previous.

Wall Street Journal's tabulation of 14 new utility funded debt issues confirms the latter fact. At May 21, average yields on these new offerings (based on then current bids) were more than eight decimals (0.08 per cent per annum) higher than average yields of these securities on the basis of their original offering prices.

It is significant that current bids were lower than offering prices in all cases except the first double "A" rated issue mentioned above (offered May 14 at a 4.95 per cent yield basis) where the recent price rally lowered this figure. The other such issue (offered May 21) was not included in the tabulation, since the selling syndicate is not dissolved.

Mr. Stanley, formerly a utility financial executive, is now president of Corporate Services, Inc. of New York City and is well known as a financial writer. He is a member of the Controllers Institute of America and the New York Society of Security Analysts. He serves on the Finance Management Committee and the Tax Committee of the Controllers Institute (N. Y. Control). His articles are appearing once a month in TELEPHONY.

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Increased yields on new utility funded debt issues had been anticipated for 1959, but what developed in the last 30 days was more drastic than expected in that period. Consensus of opinion seems to point to even higher future yields. Unless there should be a let-up in the forward movement of business activity, total plant expansion is now estimated to exceed last year's expenditures by more than 7 per cent (the percentage estimated by McGraw-Hill in March), and this, too, presages need for greater credit, both long and short-term.

Anything but technical downward corrections in interest rates seems unlikely soon. The trend still points upward on a long-range basis.

Is the prospect for increased future yields on utility funded debt offerings sufficient to warrant utility management in bringing bonds to market on an accelerated schedule, prior to actual cash needs? The answer is difficult, but we incline to a negative response.

On the other hand, there's certainly no reason currently for deferring funded debt financing required in the near future. The time may be approaching when utilities will wish to seriously consider selling additional common stock as a temporary substitute for projected issues of new funded debt, to take advantage of the unusually low costs of the former type of money in today's market, compared with the near-record high interest rates presently prevailing.

The credit pinch and higher yields accompanying it are bringing to the forefront, as a matter of importance, the highly controversial issue of whether funded debt issues should be made "call-free" for a period of years to attract the large institutional buyers, and thus obtain the present advantage of a lower yield.

There isn't space here to again discuss the pros and cons of this essential question, but it obviously deserves ever-increasing consideration. The answer may well vary among different companies, due to special circumstances relating to their financial ratios, projected expansion, etc.

* * * *

STOCKS REACH NEW PEAKS: Despite the vivid red signals which flashed from various authoritative sources some months back, warning investors (and speculators) about putting money into the present stock market, that market has continued its upward march, closing April considerably on the upside for the month. Since then new historic highs have been made. At May 27, leading stocks and averages were currently at or near these all-time highs, and there seems little on the horizon to bring them down,—except for limited declines by reason of "technical corrections".

A leading security analyst recently voiced an interesting view which may prove valuable as a plus mark for prices of utility common stocks. He feels that dividends on these stocks have by now come to be looked upon, both by analysts and the investing public, as being just as safe as interest on high grade bonds.

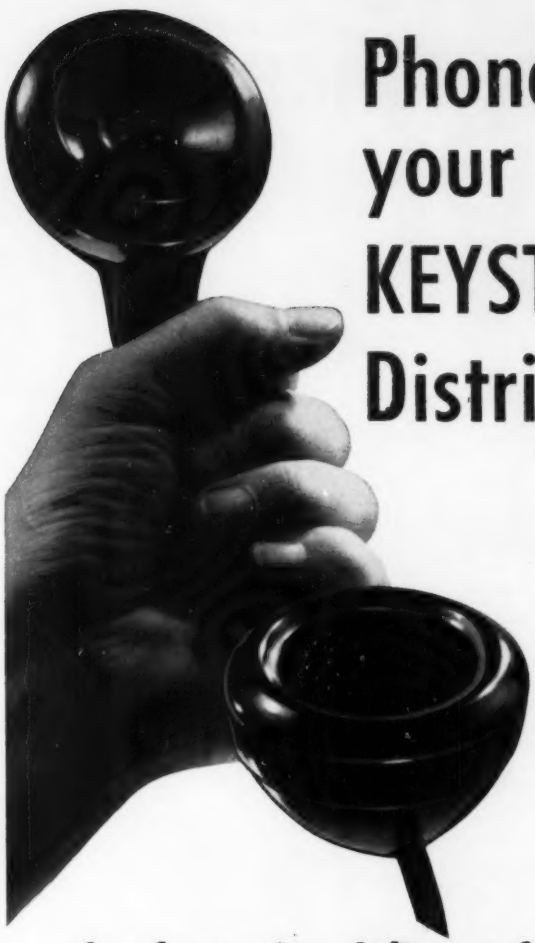
This concept could logically lead to substantial switching from such bonds to utility common stocks to obtain the possibility of future market appreciation, plus a measure of protection from inflation.

The New York Times 50-combined-stock average at May 27 stood at the following percentages above the average at the last three yearends respectively: The increase over the 1958 yearend was 10 per cent, (comparing with a rise of 7 per cent over the same date as of Apr. 22, 1959); for 1957, (when prices were low) the rise was 51 per cent; and compared with Dec. 31, 1956 (when substantially higher prices prevailed) the increase was 21 per cent.

* * * *

NEW BUSINESS BOOM: Developments in the world of business and economics are persuasive that we have moved past the stage of recovery from the recession and are now in the beginning (or perhaps the midst) of a sizable boom in business.

Hardly a statistic is issued which does not compare favorably with the past, regardless of line of activity, and seasonal and other adjusting factors. Eight hundred companies whose first quarter earnings were analyzed by First National City Bank of New York, showed a 46 per cent increase over the low first quarter of 1958, although receding 2 per cent from the quarter ended Dec. 31, of that year. Even this latter comparison was favorable, allowing for the seasonal factor. Also, the previously unfavorable unemployment situation is at last beginning to straighten out.



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Courts and Commissions

Motorola Radio Frequency Testimony Filed with FCC

Testimony filed by Motorola Inc. with the Federal Communications Commission in a proceeding beginning May 25, to review frequency allocations in the 25-890 mc region of the radio spectrum, predicted that private mobile radio during the next 10-year period will increase fourfold.

This expansion will require at least an additional allocation of 55 mc, according to Motorola.

In championing the cause of private mobile radio, Motorola did not oppose an allocation in the 800 mc region for landline telephone company development of an entirely new public mobile radio-telephone service for the family car or related subscriber needs requiring access to the general landline telephone system.

But any such allocation, Motorola warned, must not be used as a device for reactivating private mobile communications activities to evade the prohibitions of the 1956 Consent Decree terminating a U. S. antitrust proceeding against the American Telephone & Telegraph Co. and its Bell companies. That decree required AT&T and the Bell companies, among other things, to get out of the lease-maintenance business.

Motorola's oral testimony by Messrs. Robert W. Galvin, president; Dr. Daniel E. Noble, executive vice president; William Weisz, manager, mobile and portable communications products; and Lowell E. White, vice president, Motorola Communications & Electronics, Inc., was to be given on May 28.

To Review Increase Granted Fla. Company in Jan. 1958

Set for a rehearing on June 24 by the Florida Railroad & Public Utilities Commission is the rate increase granted the Orange City Telephone Co. in January 1958. (Commissioner Jerry W. Carter dissented from the 1958 decision.)

The rehearing is a result of a petition signed by 500 citizens of Orange City and environs, requesting that the case be reheard. The petition was necessary because the expiration date for requesting a rehearing had passed.

Don Vaughn, Orange City company manager, reported that in April 1958 the company received a $410,000 REA loan for expansion of its facilities. Mr. Vaughn added that the REA acted favorably on the Orange City loan application after it had been assured the increase in rates would provide a sufficient rate of return to insure payment of interest charges and amortization of the loan.

SW Bell Answers Rate Cut Order, Asks Raise in Ark.

Southwestern Bell Telephone Co. on May 22 filed its response to the show cause order issued Apr. 22 by the Arkansas Public Service Commission asking the company to show why its rates should not be reduced.

Southwestern Bell stated that its earnings during the postwar period in Arkansas have actually been less than what the commission has usually considered adequate.

The company said specifically that its 1958 earnings not only were not excessive, they were too low. Slight upward adjustments in long distance and miscellaneous charges are needed to partially offset rising costs, according to the company. It filed an application for $425,000 in additional revenue at the same time the response to the show cause order was filed.

No increases in basic monthly service rates were proposed. The raises applied for were for long distance service and miscellaneous adjustments.

Warren E. Bray, vice president and general manager for the company in Arkansas, said the additional revenue would enable the company to recover only part of recently increased costs, including wage increases granted earlier this year as a result of union negotiations.

The rate changes proposed are an increase in the differential for person-to-person over station-to-station long distance calls by computing overtime charges on long distance to the nearest penny instead of the next lowest 5-cent multiple, and by slight increases in the charges for service connections, moves and changes.

Mr. Bray said the company has earned only about 5.1 per cent on its investment in Arkansas since the end of World War II. This, he held, was far below the 6 per cent return advanced by the commission as adequate in 1953.

The company listed its present earnings at 6½ per cent on net investment, but emphasized that this does not take into account inflation, current economic conditions or current value.

Mr. Bray also said the earnings for a single year should not be singled out. (The show cause order said "the calendar year ending Dec. 31, 1958, shall be the test period for these proceedings.") He said that if earnings above 6 per cent in any one year are to be reduced by the commission, then some way must be found to compensate the company during those years when earnings are below this level.

The company agreed with the commission that it has been "efficient and economical" in its operations in Arkansas, but said such economies had simply helped offset rising costs and had not resulted in any "tremendous savings" for the company.

The company also denied any savings on the ad valorem tax assessment program, pointing out that "the company's property continues to be assessed at a higher ratio to actual value than is the property of other taxpayers."

(The show cause order had stated "the commission is aware of savings accruing to the company from economies in operations . . . and increased efficiencies . . . and tremendous savings apparent to the commission by the revised ad valorem tax program under the Arkansas laws.")

Correction

The South Missouri Telephone Co., Eminence, has asked the Missouri Public Service Commission for permission to purchase the Alton and Thayer exchanges of the Southwestern Bell Telephone Co. TELEPHONY erroneously re-

ported on May 23, page 39, that the company had asked to sell these exchanges to Southwestern Bell. The South Missouri company has also asked to purchase the Mammoth Springs, Ark., exchange from Southwestern Bell. The South Missouri company operates exchanges at Eminence and Winona which are near the other three.

Arkansas Company Asks OK On Rate Raise, Financing

Scheduled for a hearing by the Arkansas Public Service Commission on May 26 was the request of the Central Arkansas Telephone Cooperative, Inc., Donaldson, to raise its rates and to borrow $59,000 from the REA.

The company's application stated that present rates were not high enough to provide sufficient income for maintenance and operating expenses and to pay off a $219,000 loan.

Ark. Independent Granted Rate Increase Approval

The Public Utilities Co. of Crossett received approval from the Arkansas Public Service Commission to raise rates for telephone service, as of May 1.

Old and new rates are as follows:

	Old	*New*
One-party business	$5.25	$7.50
Two-party business	4.75	6.50
Multi-party rural business	5.00	6.00
One-party residence	3.25	4.25
Two-party residence	2.75	3.25
Multi-party residence	2.25	2.75
Multi-party rural residence	3.00	3.50

General of Pa. Granted Rate Increase Sought

The Pennsylvania Public Utility Commission has granted a $1,404,455 rate increase to the General Telephone Co. of Pennsylvania, it was reported on May 27 (TELEPHONY, July 19, 1958).

The increase, which goes into effect immediately, is $628,717 less than the company requested. It will affect 150,000 subscribers.

N. C. Law Validates Existing Franchise Agreements

The Senate of the North Carolina Legislature on May 28 passed and enacted into law a House bill validating franchise agreements under which telephone companies provide free or reduced rate service to municipalities in exchange for franchises and rights-of-way (TELEPHONY, Feb. 21).

The North Carolina Utilities Commission recently declared such agreements to be unconstitutional in a collateral opinion issued in a rate case decision involving Carolina Telephone & Tele-

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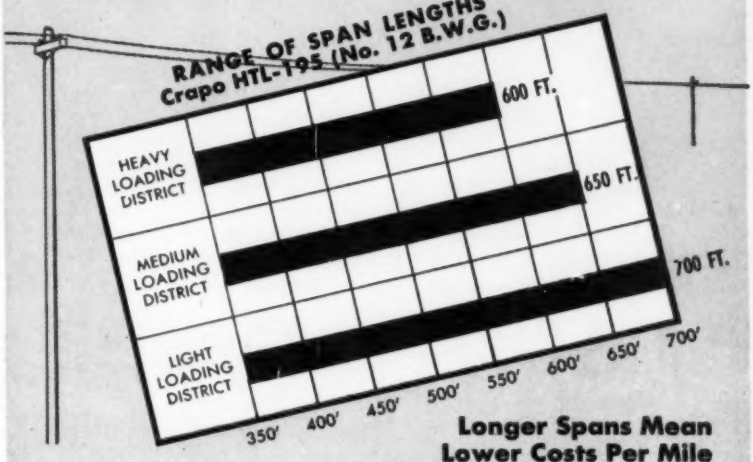

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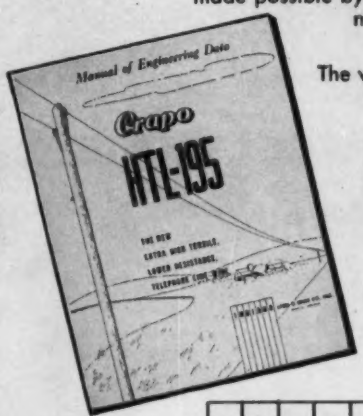

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graph Co., Tarboro, and it since has ruled out similar agreements made by other companies.

It was the commission's contention that such service is discriminatory in that its cost is passed on to other subscribers in the form of higher rates.

The bill, before enactment, was amended to provide that it apply only to contracts existing prior to passage of the act. A group of municipalities have joined in an appeal now before the courts from the commission's ruling.

General of SE Given Raise For 2 N. C. Exchanges

General Telephone Co. of the Southeast, Durham, N. C., on May 26 was authorized by the North Carolina Utilities Commission to increase rates at its Durham and Creedmoor exchanges to bring in approximately $122,000 more annually (TELEPHONY, Aug. 23, 1958).

The company had asked for increases totaling $395,054.08, and the city of Durham had opposed any increase.

General Telephone had contended that the fair value of its property was 8 million dollars. The city of Durham had claimed the rate base valuation to be 6.2 million dollars and the commission set it at $7,350,000. The commission held that 6 per cent was a fair rate of return.

The commission also gave the company permission to extend its base rate area at Durham, which will reduce mileage charges to some subscribers. In its order, it also said the company should discontinue its practice of providing free telephone service to the city of Durham and the town of Creedmoor and discontinue discounts to charitable institutions.

New rates are as follows:

Durham	
One-party business	$10.00
Two-party business	8.00
Four-party business	6.00
Multi-party business	5.25
One-party residence	4.00
Two-party residence	3.25
Four-party residence	2.50
Multi-party residence	2.50
Creedmoor	
One-party business	$7.00
Multi-party business	4.00
One-party residence	3.50
Four-party residence	2.25
Multi-party residence	2.25

General claimed that increased labor, material and equipment costs and the necessity of expanding its Durham and Creedmoor operations "entitled it to a 6.5 per cent return."

The city of Durham, which retained a Washington, D. C., utility rate expert, argued that less than a 6 per cent rate of return was ample profit for what it termed a monopoly with a "captive" clientele.

Accept New York Company's Tariff Amendment for Raise

The New York Public Service Commission on May 28 accepted a tariff amendment filed by Westport Essex & Lewis Telephone Co. to increase its rates effective June 1. The company serves about 620 subscribers in and near Westport.

Prior to Apr. 5, when the company cutover to automatic operation at a cost of $127,500, it had two sets of rates, one applicable to magneto service and the other, slightly higher, for common battery service. The new tariff establishes a single-rate schedule applicable to automatic service only and offers two new types of service—two-party business and four-party residence.

In seeking permission to increase its rates, the company said the $8,200 additional revenue to be obtained from its present subscribers is needed because of the increased plant investment

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resulting from the recent cut-over.

The new rates to be charged by the company are as follows:

One-party residence	$4.25
Four-party residence	3.25
Ten-party rural residence	3.50
One-party business	6.25
Two-party business	5.50
Ten-party rural business	5.25

OK Raise for EAS in Wis.

The Wisconsin Public Service Commission on May 18 granted the Wisconsin Telephone Co. and the General Telephone Co. of Wisconsin permission to provide extended area service between the Wisconsin company's Delavan exchange and the Darien exchange of the General company. The Wisconsin company was granted a $3,600 increase at the Delavan exchange to cover the cost of the Darien EAS and EAS also established between Delavan and the Wisconsin company's exchanges at Lake Geneva and Williams Bay. This is expected to offset an estimated $10,000 loss of toll revenues and represents a $4,000 saving in timing and ticketing toll calls.

OK Incorporation in Ark.

The Arkansas Public Service Commission has approved the incorporation of the Perco Telephone Co., Perryville, it was reported on May 20. Incorporators are T. S. Lovett, Jr., of Little Rock; Joe E. Trower of Mannford, Okla; and Roy E. Thomas of Tulsa, Okla. The company was authorized to issue 4,000 shares of stock at $25 each.

Change Date of Alaska Meet

The convention of the Alaska Telephone Association will take place on Oct. 5, 6, and 7 instead of in September as previously announced. It will be held in Anchorage at the Westward Hotel, according to an announcement by Martha P. Cushing of Sitka.

Two Ask Increases in Wis.

The Wisconsin Public Service Commission was to have heard the applications for rate raises of the Bonduel Telephone Co. and the Larsen Telephone Co., respectively on June 2 and 3.

Jerusalem to Get Dial Service

The Hashemite Kingdom of Jordan, it was reported recently, is to have a completely automatic telephone exchange system. The new exchanges will provide dial service for more than 3,000 subscribers and provision is made for extension to more than 20,000 subscribers later. The cities concerned are Jerusalem, Ramallah, Jericho and Bethlehem. The exchange at Jerusalem, serving 2,000 subscribers will be the main center of the network.

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Ray Blain Receives Signal Corps Civilian Service Award

One of the last official acts of Lt. Gen. J. D. O'Connell, retiring chief signal officer of the army, was to present a 40-year service pin and Civilian Meritorious Award to Ray Blain, chief engineer of the U.S. Army Signal Communications Engineering Agency and technical editorial director of TELEPHONY. The ceremony took place in the Pentagon, Washington, D. C. on May 1.

The citation for meritorious civilian service and for outstanding performance of duty reads as follows: "For meritorious service as supervisory electronic engineer (General) plant design with the United States Army Signal Engineering Agency, Washington, D. C., during the period Feb. 1955 through Mar. 1959.

"His technical proficiency as a communications engineer and ability to deal with personnel at all echelons in industry as well as in government service provides a combination which is difficult to find. This unusual ability, devotion to duty and personal integrity has enabled him to accomplish a multitude of improvements in the broad overall fixed plant communications program of the Army and associated civilian defense agencies."

LT. GEN. J. D. O'CONNELL (left), retired chief signal officer, presents award to Ray Blain, TELEPHONY's technical editorial director. Looking on is Col. G. P. Sampson, chief, army communication service division, Office of the Chief Signal Officer.

Educate for Civic Duty

"It is about time that education includes the idea that an individual attains satisfaction, not by getting everything or the highest honors for himself, or herself, but by serving society in his or her place, with distinction. . . ."—*Somerset (Ohio) Press.*

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Four-Cent Stamp Buttons Aid N. C. Extension Sales

The Carolina Telephone & Telegraph Co. has adopted a novel method of using four-cent postage stamps to promote extension telephone sales, and no mailing is involved.

Carolina Telephone's commercial and plant department employes who regularly have contact with the public in their work are now wearing a plain white round button with an unused four-cent stamp mounted in the center.

The idea behind the gimmick is to arouse enough curiosity in people who see the unique button to elicit questions.

The answer to the question, "What's the button for?", is, naturally, "Four cents per day is the cost of an extension telephone."

Employes say that the button is proving to be not only a conversation piece, but affords easy entree to talk about extension telephones.

The stamps were stuck directly to the buttons, then given a thin protective coating of transparent plastic.

Iowa Company Buys Co-op, Plans Automatic Cut-over

The Bellamy Telephone Co., Knoxville, Ia., has purchased the Bussey Cooperative Telephone Association, it was announced during the week of May 11 by the presidents of the two companies, respectively, Earle Bellamy and Fred L. Mick.

Stockholders of the Bussey cooperative approved the sale, "by a large majority" earlier. The Bussey company has approximately 250 subscribers.

The Bellamy company will assume operation of the Bussey exchange, it is expected, on Sept. 1. Automatic operation is planned as soon as rural lines are ready and a new building constructed to house the equipment, Mr. Bellamy said.

Conversation As Cure

"Philosophy finds talkativeness a disease very difficult and hard to cure. For its remedy, conversation, requires hearers: but talkative people hear nobody, for they are ever prating. And the first evil this inability to keep silence produces is an inability to listen." —PLUTARCH.

The Vanishing Thought

"A man would do well to carry a pencil in his pocket, and write down the thoughts of the moment. Those that come unsought for are commonly the most valuable, and should be secured, because they seldom return."—BACON.

you expect more from a specialist ...you get more from

ALPHADUCT DROP WIRE

COMPARE Alphaduct with any other telephone drop wire! None can offer you a better balance of the physical and electrical properties necessary for dependable, long-life communication service.

EXHAUSTIVE TESTING:
TANK TESTS—every coil of Alphaduct is submerged in water for voltage breakdown and insulation resistance tests.
COMPRESSION TESTS—Alphaduct drop wire is manufactured to withstand exacting crush resistance tests.
P-CLAMP TESTS—insures superior bonding of rubber to conductor and jacket to insulation...simulates field conditions.

EXCLUSIVE DATING FEATURE—every length of Alphaduct carries manufacturer's name, catalog number and date of manufacture...provides permanent service record of installation...proves Alphaduct's long-lasting durability.

CARTON PACKAGING—provides ease of handling... protects products during shipment and storage... simplifies inventory counts.

AVAILABLE IN THREE CONSTRUCTIONS (in both reinforced and non-reinforced) Twisted Pair, Parallel Type, and Dumbbell Type.

When you buy Alphaduct Drop Wire or any one of Alphaduct's complete line of telephone wires—you buy the know-how of the only real independent specialists in the insulated telephone wire field.

National Distributors
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NEW BRUNSWICK, N. J.
CHarter 9-8090

Regional Distributors
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Columbus, Ohio

The Lindsay Telephone Supply Co.
Cleveland, Ohio

Pankey Supply Co.
Charlottesville, Va.

News on New Products

SELF-ELEVATING LADDER ASSEMBLY—Production of a new spring-loaded, self-elevating ladder rack assembly for use on service bodies having perpendicular rear panels has been announced by the Powers-American Division of McCabe-Powers Body Co.

"With this new assembly, ladders exceeding 28 feet in length can now be used at the rear of a service body,"

stated Brooke Daly, company vice president, "and the unit literally takes the work out of ladder erection."

The assembly enables one man to quickly, easily and safely erect ladders up to 36 feet in length. As the ladder is pulled from its stowed position, it moves to the rear of the truck on six-rubber-covered rollers in the support-guide section of the assembly. The company says that when the user exerts a slight downward pressure on the end of the ladder, four powerful coil springs take over a major part of the job of raising the ladder and steel support braces to a fully-erected position. Stowing the ladder is equally fast and easy, according to Powers-American.

The unit is available in sizes for use on bodies having top-of-compartment lengths of 75, 90 and 104 inches. It is furnished with a 28-foot, 30, 32, 34 or 36-foot two-section extension ladder. The assembly shown in the photo is installed on a Powers-American Series 44 service body.

In addition to the new rack assembly, the Powers-American line includes overhead, side-mounted and hinged ladder rack assemblies. Request NP1099.

•

DOCUMENT PRINTER—The Univac Solid-State Document Printer, the first electronic printing unit to compute, edit, punch, print on both sides and segregate any standard tabulating-sized documents in a single operation was announced recently by the Remington Rand Division, Sperry Rand Corp.

Businesses using Univac computers can apply the new printer to such operations as: utility bills, dividend checks, proxy notices, reply cards, payroll checks and inventory cards.

The new Univac printer has been installed at the Boston Edison Co. in Boston, Mass., for use in consumer billing and the establishment of a master card file of data on meters, meter reading, deposits, addresses and accounts receivable.

The company states the new printer is designed to eliminate manual and peripheral machine operations otherwise necessary to complete large-scale computer processing. Ordinarily, when basic computer programming is completed, the resulting magnetic tape must go through several stages before the final documents can be printed out. Now, the tape can be fed directly into the printer, and all final printing steps are handled automatically at high speed.

The new printer takes advantage of solid-state design to effect economy in initial cost, maintenance, floor space and power requirements, and to facilitate speed of operation, according to Remington Rand.

Cards can be fully processed, in a single pass through the printer, at speeds up to 1,456 lines per minute, and as many as 1,820 characters of information can be printed on one card.

A magnetic drum storage capacity of 50,000 digits of information permits a variety of programming, control, editing and mathematical operations, the company reports. Special information storage devices make it possible for computing and editing to go on while other operations such as reading, punching, and printing are being accomplished. Request NP1100.

•

"PIGGY BACK" MICROWAVE — A 29-station Motorola microwave system has been installed "piggy back" style with a new AT&T Long Lines high capacity "TD-2" Ohio-Georgia microwave system.

The network starts at West Unity, O., and ends in an eight-station loop around Atlanta, Ga. The other 20 stations stretch the system through western Ohio, Kentucky, Tennessee and into Georgia for a total of 813 miles.

The Motorola microwave, used with

TELEPHONY PUBLISHING CORP.
608 S. Dearborn St.
Chicago 5, Ill.

Please have the manufacturer send me without obligation the literature indicated by the following numbers:

NP1099———; NP1100———; NP1101———; NP1102———;
NP1103———; NP1104———; NP1105———; NP1106———;
NP1107———; NP1108———; NP1109———; NP1110———;
NP1111———.

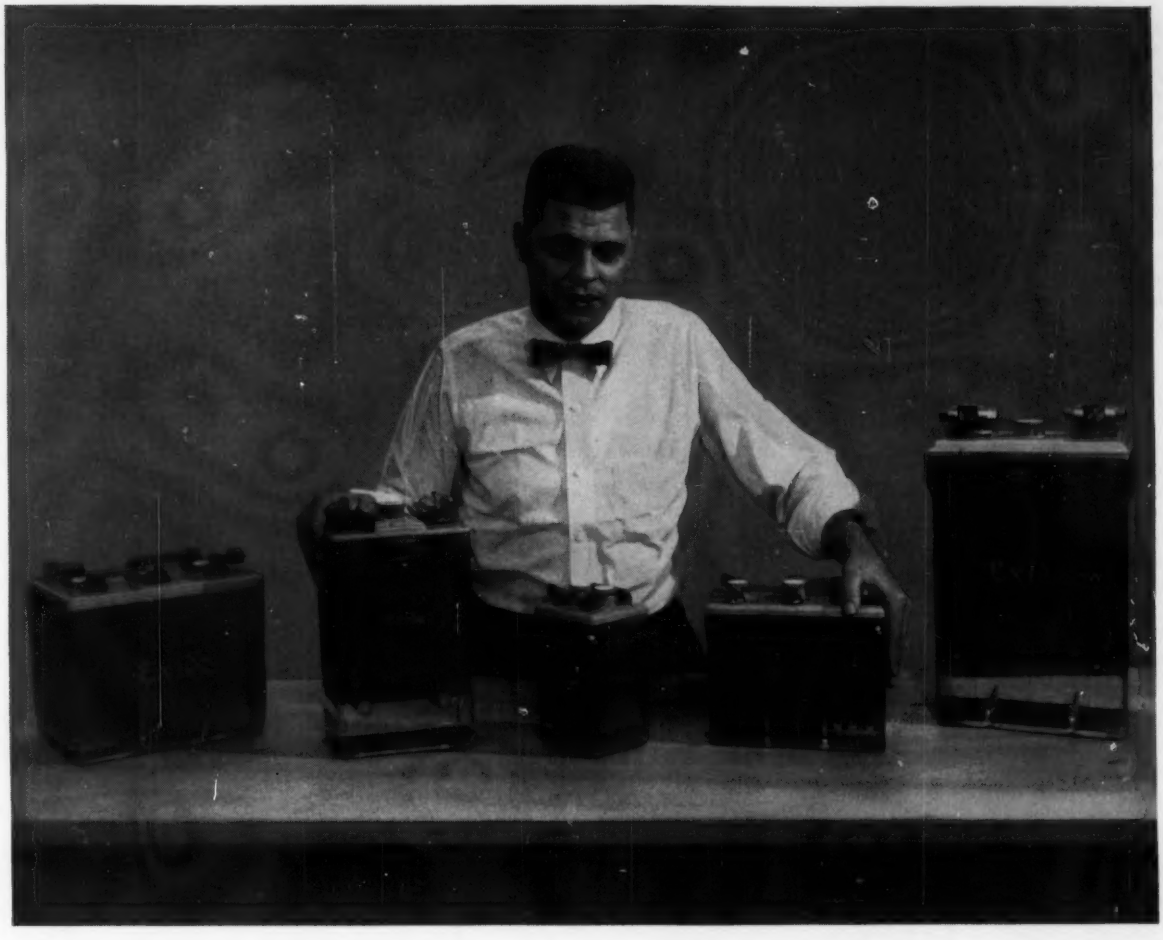
Name..... Title.....

Company.....

Street.....

Town and State.....

6/6/59



WOULDN'T YOU RATHER "CHOOSE" YOUR BATTERY?

Exide-Tytex batteries with Silvium grids were chosen by Metamora Telephone Co., Metamora, Ill. Silvium is Exide's patented grid alloy proved up to 100% more corrosion resistant.

That's the surest way to meet your exact requirements. The straight facts are that different applications call for different battery types. But only from Exide can you be certain of getting the best type for you. Because Exide gives you the broadest choice. Exide-Manchex, the plante type unmatched for long life, features Silvium corrosion resistant grids; Exide-Tytex is available with Silvium grids or calcium grids. You choose from the broadest range of capacities in the field. In every case, you know you are getting the extra dependability and value only Exide offers. Buy with confidence. Buy Exide. Rectifier and motor-generator chargers available to cover any application requirements.

For complete information on Exide stationary batteries, write for new illustrated brochure. Exide Industrial Division, The Electric Storage Battery Company, Philadelphia 20, Pa.

Exide®

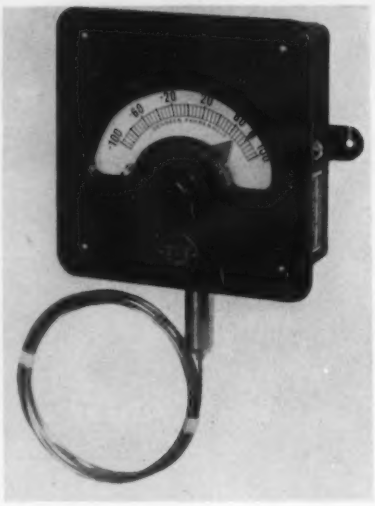
single side band multiplex, provides 12 maintenance or "order wire" voice circuits and "C-1" alarm circuits. The system is called "piggy back" because it uses the same towers and antennas as the regular Long Lines system. It is unique in that it will operate on frequencies compatible to the Bell System very heavy duty "TH" microwave equipment now being developed which may eventually supplement the presently used "TD-2" circuits on the route. Request NP1101.

•

TEMPERATURE-INDICATING CONTROL—The E36N is United Electric Controls Co.'s new, sensitive, remote bulb temperature control designed to control and indicate temperatures of gases, liquids and hotplates over a variety of ranges between —100° F. & +600° F. It is ideally suited for applications where accuracy and reliability are required, but minimum cost desired, according to the company.

Reference between the setting and controlling temperatures is provided by using a single scale and two pointers. The company says the control may be readily set to control and indicate anywhere within scale limits, and calibration is easily checked.

The E36N has die-cast aluminum, black wrinkle finish enclosure, with



black bakelite cover. The dial is aluminum with black figures on a white background. The bellows housing is nickel-plated brass with copper capillary and bulb—stainless steel also available. Approximate weight: 2 lbs. 8 oz.

Several types of switches are available, including: normally open, normally closed and double throw. Ratings are 15 and 20 amp 115/230 volts AC. All switches are single pole and suitable for up to 180° ambient temperatures, United Electric Controls report. Request NP1102.

•

WALL OR POLE-MOUNTED BOOTH—Essco Products Co. is introducing its Essco WB400 "Brevi-Booth," an outdoor walk-up or drive-up telephone booth designed to occupy a minimum amount of space and to be as tamper-proof as possible.

Essco says the Brevi-Booth protrudes 18 inches on a pole installation (shown) and 15 inches on a wall installation. This booth has been used at bus stops, on sidewalks, in drive-ins, near downtown intersections, and in service stations, as well as a number of other locations.

The booth is constructed of steel, aluminum, tempered glass and plexiglas.

The company says that its I-beam, welded bead and wing plate design discourages vandalism. The Essco WB400 Brevi-Booth cannot be removed without removing the telephone—a boiler plate back and steel ring prevents prying out of the telephone, thus defying theft attempts.

The wall-mounted or pole-mounted Brevi-Booth has a protected directory compartment, with the book on spring-loaded hinges. Request NP1103.

•

HAND EMBOSSING MACHINE—The Dymo Corp. announces the production of an all-new, lightweight hand embossing machine the Dymo-Mite.

Weight of the "Mite" is 26 ounces. The company says its embossing dies are specially designed to give sharp, raised letters on a wide variety of plastic and metal tapes. The machine has

KELLOGG'S

K-1A1 KEY TELEPHONE SYSTEMS

THE INDEPENDENT TELEPHONE COMPANY'S STANDARD OF MEASUREMENT

KELLOGG'S K-1A1
ADDENDUM NO. 1
TO IM-3003 (RW1-58)
INSTRUCTION
MANUAL
NO. IM-3003
DIAL INTERCOM STATIONS
K207B & K40A
K207A
1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17
MEMO
Starting early in 1959
Kellogg will begin offering
a new dial intercom for
larger K-1A1 installations.
This new intercom,
consisting of the K207B and K40A,
will have a capacity of seventeen
stations, yet still only require
one intercom button in our
Key Telephones.
Please contact our
Kellogg representative for
the details — looks good!
RM

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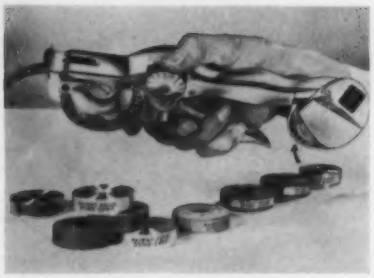
EXPORT—157 Prospect Street, Passaic, New Jersey, PRescott 3-5100



a built-in cut-off blade and calibrated tape position indicator.

Embossed labels can be made on-the-spot with the Dymo-Mite Labeler and Dymo Tapes. A variety of ½-inch-wide tapes are available—colored vinyl plastic, aluminum, monel, copper, stainless steel, and others. When the Dymo Tape label is finished, it can be attached immediately because of its special pressure-sensitive adhesive backing. (Tapes are also available without adhesive backing.)

This system offers a way to make embossed labels for any factory or field indentification procedure—or inventory system. Among the many uses are labeling machinery controls, switch panels, conduits, pipes, parts bins, laboratory equipment, meters, tools, trucks, etc.

One feature of the Dymo plastic tape is that when the letters are embossed, the raised area changes color. This results in improved legibility with, for example, white letters against a blue, brown, red or green background.

Dymo also offers a heavy-duty model labeler with chrome-plated zinc alloy body, cut-off blade and built-in hold punch attachment (preferred for use on heavier monel and stainless steel tapes). Request NP1104.

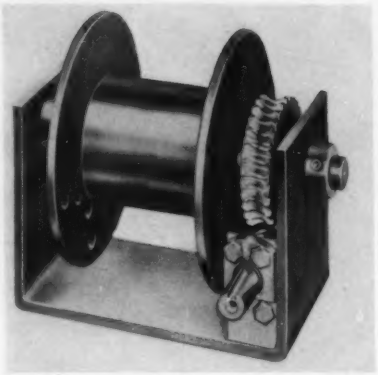
•

WORM GEAR WINCH—Little Giant Products, Inc., has just released information on their Little Giant Worm Gear Winch Model WGW-1.

These winches are equipped with machine-cut gears—not cast—which assure maximum smoothness of operation as well as maximum efficiency, the company states.

Although worm gear winches require more power than spur gear winches to pull the same load and are somewhat slower in operation, they do have several advantages which are most important for certain applications.

The company states that worm gear winches are safe and require no brakes because the worm gear is self-locking,



and automatically holds the load at any stopped position. They are also quiet in operation as no ratchets are required.

The Little Giant Worm Gear Winch can be mounted in any position. They are equipped with a crank shaft extension on either or both ends and are hand or power-operated. According to the company, this winch is recommended particularly where the load is to remain suspended for any length of time. They may be used to advantage and with safety for any lifting job in the exchange, the company says. Request NP1105.

•

PORTABLE PRECISION OHMMETER—A portable, direct-reading precision ohmmeter providing accuracy, according to its maker, previously available only with a resistance bridge, is

now offered by Associated Research, Inc. Accuracy is held to ½ per cent of mid-scale value, resulting in measurements that are four to six times more precise than obtained from the usual direct-reading ohmmeter, the company states.

This accuracy in a portable ohmmeter is advantageous in resistance measurements of leads, grounds, components, point-to-point circuit tests, and

now available!

PANCAKE 2800

OVERFLOOR DUCT

FOR USE WITH
CALL DIRECTOR TELEPHONE
AT AWAY-FROM-WALL LOCATIONS

Bell Telephone companies can now install the new Call Director push button telephone neatly at desks away from walls. Wiremold's new PANCAKE 2800 Overfloor Duct has been designed specifically to hold the 100 (or 75) pair cable required with the Call Director. Overall raceway height is held to the absolute minimum. All steel; easy to install on any floor. Write for full information.

THE WIREMOLD® COMPANY
HARTFORD 10, CONNECTICUT ADams 3-6251

many other applications, says the company.

The Model 244 precision ohmmeter is calibrated in four ranges, for measurements from 0.05 ohms to 50,000 ohms, and the Model 246 for measurements from 0.01 ohm to 100,000 ohms.

Associated Research, Inc., reports these instruments operate from self-contained batteries and compensate fully for resistance of leads and batteries. They are housed in steel cases with removable lids, measuring only 7¾ x 6⅛ x 7½ inches. Weight is 12 pounds. Request NP1106.

•

POISON OAK, IVY AND SUMAC PROTECTION—The Vanfaire Co. has developed a protective hand lotion effective against poison oak, ivy and sumac. Called Vanfaire Lotion, this pre-

ventive is also antiseptic (it guards against infection from minor cuts and scratches) and anti-histaminic (it helps control allergic skin rashes), the company states.

Vanfaire quotes the Pacific Telephone & Telegraph Co. as having found: "In a 12,000 man-hour exposure test . . . Vanfaire Lotion is effective in reducing the number of cases of poison oak when properly applied as a preventive before entering and working in the infested areas."

The lotion is available in gallon containers with a 10-ounce wall dispenser; quart bottles with plungers, or 8-ounce plastic oval squeeze bottles. Request NP1107.

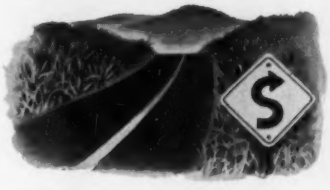
•

FLASHING KEROSENE WARNING LIGHT—Wm. W. Lee & Son has developed a kerosene light which will give sharp, evenly-spaced and well-defined flashes.

The "Blitz" produces 50 to 60

Whatever your brush problem

Line?



Roadside?

Right-of-way?

WEEDONE can solve it!

With the right background—Chemical control of weeds and brush has developed along established lines of procedures and practices. Amchem initially pioneered the major advances in the field, has originated many of today's accepted procedures and products for efficient, economical weed and brush control. Your problems are in *experienced* hands when you hand them to Amchem!

With the right approach—Amchem's corps of weed and brush specialists are basically application specialists. Combining comprehensive theoretical and practical experience they are able to offer all industry a realistic approach to *any* weed or brush problem. These specialists have developed a variety of efficient weed and brush eradication programs over thousands of miles of line, roadside and right-of-way areas once choked and inoperable due to infestation.

With the right product—Amchem's tremendously diversified product line is your assurance that the right weed and brush killer is available and will be utilized for your specific problem. Weedone Brush Killers, for example, have been used in the field for years and proven eminently successful in eliminating weeds and brush wherever they are a problem. Why not bring your problems to Amchem?

Amchem and Weedone are registered trademarks of Amchem Products, Inc.

AMCHEM PRODUCTS, INC.
AMBLER, PA.

Please send me copies of your "Brush Control" brochure and full information on the uses of Weedone Brush Killers.

Name_____ Title_____

Company_____

Address_____

City_____ Zone____ State_____

AMCHEM

WEEDONE

BRUSH KILLERS

another chemical development of
Amchem Products, Inc.
(Formerly American Chemical Paint Co.)
St. Joseph, Mo. • AMBLER, PA. • Niles, Calif.

No. 1959-AR No. 1958-AR

NEW KLEIN
Replaceable Gaff Adjustable Climbers

These new Klein Replaceable Gaff Climbers assure maximum quality and safety. We recommend leg irons be replaced after three sets of gaffs have been used.

The easily replaceable gaff is held in position by a self-locking screw. Full impact is absorbed by the gaff and leg iron. No load is transmitted to the screw.

Adjustable to 14½, 15, 15½, 16, 16½, 17, 17½, 18, 18½ and 19 inches. Made in matched pairs, right and left. Available with triangular ring at ankle or riveted ankle loop. Aluminum finish. Every climber individually tested.

WRITE FOR BULLETIN 559

Bulletin 559, giving full information on Klein Replaceable Gaff Adjustable Climbers, will be sent on request.

ASK YOUR SUPPLIER

Foreign Distributor: International Standard Electric Corp., New York.

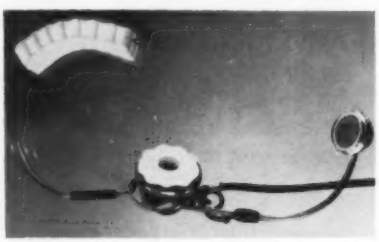
Mathias KLEIN & Sons
7200 McCORMICK ROAD • CHICAGO 45, ILLINOIS

evenly-spaced flashes per minute through two prismatic plastic cover glasses measuring 3¼ inches x 8 inches each. The Lee company reports that *the light produces a constant light between flashes and magnifies its source light 30 times through the cover glass.* The cover glasses are available in either red or amber.

This light will operate for approximately 50 hours on just ½ pint of kerosene, the company states. The "Blitz" is heavily constructed and totally weatherized. Request NP1108.

•

FOAM RUBBER HEAD PAD SET—A new patented foam rubber head pad set (U. S. Pat. 2,686,231) is being marketed by Art Anson, Inc. The manufac-



turer points out that certain doctors recommend the use of foam rubber head pad sets because they eliminate headaches and sore ears that may be caused by constant pressure of a head band set.

The Anson company states that its new head pad set also prevents head band slipping and hair pin digging among female operators. The pad can be worn six different ways; thus it can be adjusted to the comfort of the wearer, says the company. Ear-piece is removable for cleaning when necessary. Request NP1109.

•

TALLY COUNTER—A new counting and tallying device, worn like a wrist watch, has been developed by Edmund Scientific Co.

Tally clerks and checkers may use it for counting traffic; for cargo and pro-

duction tallies; tallying loads or batches of materials and dozens of other uses.

Technologists and research men use the wrist tally counter for counting operations in laboratories and pilot plants. Industrial engineers and efficiency experts employ it in time-and-motion studies.

Worn on the wrist, the tally counter is less likely to be lost or mislaid. Operation is simplicity itself; just push the button and count is tallied on visible dials, the company states. The tally counter totals to 99 and dials are easily reset to zero by turning knobs.

The company states that the counter is lightweight and of sturdy Swiss construction. Dimensions are 1-7/16 inches x 1¼ inches x ¼ inch. A leather wristband is included. Request NP1110.

•

MANUAL SOD CUTTER—A new foot-operated sod cutter has been introduced and marketed by the Jay-Bar Mfg. Co.

The Jay-Bar sod cutter is of all-steel construction, and is designed to cut sod easily and accurately 12 inches wide without ripping, tearing, or breaking

the sod, states the company. Three cutting depths can be obtained by pre-adjusting the cutting blades. A relief gap between the blades prevents binding to assure ease of cutting, Jay-Bar states.

The Jay-Bar sod cutter according to the company, also features a ballbearing surface roller guide which maintains an even depth for the blades to cut beneath the sod. A swivel kick-bar for the foot-operated sod cutter also adjusts to three positions for the operator.

The manufacturer points out that the Jay-Bar sod cutter produces a blanket of sod the desired thickness ready for rolling in one operation.

Specifications of the Jay-Bar sod cutter are as follows: weight — 21 pounds; operating height — 34 inches; width—21½ inches over-all; width of cut—12 inches; roller (ballbearing)—150-pound test; cutting depth—1½, 2, 2¾ inches; operation — manual, foot-operated. Request NP1111.

NBFU Says April Fire Loss Under '58 by 8.5 Per Cent

Estimated fire losses in the United States during April amounted to $90,689,000, the National Board of Fire Underwriters has reported.

According to Lewis A. Vincent, Underwriters' general manager, this $90,689,000 loss represents a decrease of 8.5 per cent from losses of $99,061,000 reported for April, 1958, and a decrease of 9.0 per cent from losses of $99,610,000 for March, 1959.

Losses for the first four months of 1959 now total $401,402,000, a decrease of 1.0 per cent from the first four months of 1958, when they amounted to $405,554,000.

These estimated losses include an allowance for uninsured and unreported losses.

REA Employes Given Awards By Dept. of Agriculture

Staff members of REA were honored by the U. S. Department of Agriculture at annual honor awards ceremonies held in Washington, D. C., on May 26.

Superior service awards for their contributions to rural telephony were presented to Donnan E. Basler, Richard Gabel, Hans S. Hoiberg and Walter J. O'Neal.

Mr. Basler, telephone administrative officer, is a native of Missouri. He was honored for his achievements in coordinating REA's telephone program with national civil defense activities.

Mr. Gabel, telephone business econo-

AD T-100

E-Repeater
E2 (HEC-0200)
E3 (HEC-0300)
Nine E-Repeaters with AC power unit, on 23" shelf
SURPRISING E-REPEATERS CUT COPPER OVERHEAD
Portable Repeater Package (AC power supply and 4 E-Repeaters)
E-Repeater Power Unit, AC operated (RPU-0230)
Test Instrument for E and AT Repeaters (also direct reading impedance measurements)

SAVE "COPPER DOLLARS" by correct application of Hallamore E-type, negative impedance, repeaters. NEW PLANT...Use finer gauge cable — add E-Repeaters only as required for optimum transmission. EXISTING PLANT...Use original cable—add E-Repeaters only as required by circuit growth and for transmission improvement. E-2 REPEATERS reduce circuit loss by approximately 50% (maximum gain, 8 db). E-2 AND E-3, IN COMBINATION, reduce circuit loss by approximately 85% on properly-loaded trunks (maximum gain, 12 db at loss center; 8 db at either end). VERSATILITY: If, at any time, circuit requires change, repeaters can be shifted, while costly outside plant need not be changed. For printed information, or for complete engineering assistance, write Hallamore Electronics Co., Telephone Dept., 714 Brookhurst Ave., Anaheim, California: a division of The Siegler Corporation.

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HALLAMORE

1ST CHOICE of UTILITY COMPANIES!

HKP®
PORTER
COHARDITE INSULATED ELECTRIC WIRE CUTTER

For Fastest Safest • Surest Live Wire Cutting!

• Made with utility men in mind! • Cuts insulated wire soft or medium hard, solid copper wire and medium hard steel wire up to ½"! • Rugged, durable handles, Cohardite insulated • Factory-tested to 20,000 volts! Also available with round edge jaws for harder wire.

The TN STEEL CABLE CUTTER

For Steel Cable & Wire Rope
Shear-action cutter — cuts all soft or hard steel cable and wire rope up to ¾"! No deforming of wire — notched jaws lock cable during cut! Cuts fine or course stranded cable easily and cleanly.

2 CN SPECIAL SHEAR CABLE CUTTER

For Copper and Aluminum Cable
Cuts soft, non-steel cables, insulated or not, up to 1⅜"! O.D. Jaws pass each other for clean cutting! A "must" for every company using Copper or Aluminum Cable. Not recommended for ACSR.

Order from your supply house or write direct for free PORTER CATALOG — Showing many other tools for utility companies.

HKP®
H. K. PORTER, Inc.
Somerville 43, Mass.

mist, was born in New York City. He was honored for his work in improving relations with Independent telephone companies, and for advancing the interest of small telephone systems.

Mr. Hoiberg, employe development officer, received his award for training activities within the REA staff. He is a native of Iowa.

Mr. O'Neal is a timber specialist, born in Alabama. He was honored for developing training programs for REA borrowers on inspection and maintenance of poles, thus providing material savings.

General of Ohio, WMRN Given AFA Program Award

The General Telephone Co. of Ohio and Radio Station WMRN of Marion, O., were recently cited for outstanding achievement in advertising at The Fifth District Conference of the Advertising Federation of America held at Huntington, W. Va.

The prize-winning program, "Music We Remember," took first place in the Best Radio Program Series, one of 16 categories that attracted 305 entries from a four-state area to compete for the annual advertising achievement awards in AFA's fifth district.

One of four new radio programs being tested in the United States, "Music We Remember," is sponsored by General Telephone Co. of Ohio and its parent company, General Telephone & Electronics Corp., through the Kudner Advertising Agency in New York City.

The 30-minute week-day program of recorded music, written and produced by WMRN, features hit tunes of a particular by-gone year, with brief commentary on important events of that year. The program closes with a billboard of the music of another year to be featured on the following day. Brief and informative commercials are spotted at the beginning, middle and close of the program, promoting new and additional telephone services for both residence and business users.

A recent survey conducted jointly by the sponsor and producer of the program indicated exceptional public response.

Presentation of the award to General Telephone and WMRN was made by J. Gordon Bruun of Marion, vice president of the Jay H. Maish Co. and newly elected second lieutenant governor of AFA's fifth district.

Mr. Bruun pointed out that General of Ohio and Radio Station WMRN have been recently cited for their out-

Obviously pleased, men of the General Telephone Co. of Ohio and Radio Station WMRN, Marion O., share honors in the Fifth District Advertising Federation of America annual award for the Best Radio Program series. Robert T. Mason (seated, left) general manager of WMRN, holds the program presentation, with first place ribbon, one of 305 entries submitted at the recent AFA conference, at Huntington, W. Va. Also, left to right, are Clare E. Williams, president of the General of Ohio company, and J. Gordon Bruun of Marion, vice president of Jay H. Maish Co., and second lieutenant governor of AFA's fifth district, holding the advertising achievement award presented jointly to the two organizations at the conference. Standing is G. Thomas Winn, public relations director of General of Ohio.

standing support of the National Defense Program and for their public service contributions to the state of Ohio.

He also commended the two organizations for their active participation as members of the Marion Sales-Ad Club which this year has been recognized by AFA as one of the most outstanding advertising clubs in the United States and Canada for its size as well as excellent programming.

Obituaries

CHARLES E. SOUTHWICK, 57, treasurer and general manager of the Champlain (N. Y.) Telephone Co., on May 24 was gored and trampled to death by a bull in an accident on his dairy farm near Champlain.

Mr. Southwick was born June 4, 1902. He attended Champlain schools and graduated from Syracuse University.

After college, he became associated with his father in the operation of the Champlain Telephone Co. Eventually, he became treasurer and general manager of the Champlain company, succeeding his father, who survives him.

Besides his father, Mr. Southwick is survived by his wife, Ann; and two sons, David of Charlotte, N. C.; and John, a medical student in New York City.

•

THOMAS HERBERT POLLOCK, 91, of Plattsmouth, Neb., died on May 20. He was a past president of the Nebraska Telephone Association.

A leader and pioneer in the Independent telephone industry in Nebraska, he formed the Plattsmouth Telephone Co. in 1899, the first Independent in Plattsmouth.

With his associate, T. E. Parmele, he operated this company in competition with the Nebraska (Bell) Telephone Co. until 1912 when The Lincoln Telephone & Telegraph Co. purchased both properties and consolidated them into one exchange.

By that time, under Mr. Pollock's leadership, the Plattsmouth company had extended its operations into eastern Nebraska and was serving exchanges at Louisville, Ashland, Weeping Water, Elmwood and Havelock.

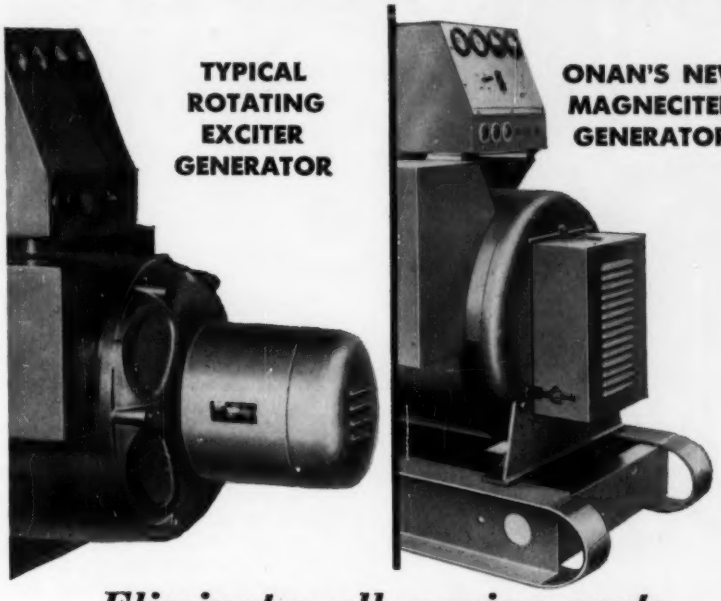
Mr. Pollock was also one of the organizers of the Western Independent Long Distance Telephone Co., incorporated in 1899. This company did not own exchanges, but built and operated long distance lines connecting Independent exchanges in eastern Nebraska.

He arrived in Nebraska in 1867, and subsequently graduated from the Plattsmouth High School.

In 1911 he built a wagon bridge

THE "NEW LOOK" IN GENERATOR DESIGN

on large Onan gasoline and diesel plants



Eliminates all moving parts in exciter and voltage regulator

Steps up performance in primary and emergency standby installations

- ✓ ***FASTER VOLTAGE RECOVERY***—Rated voltage is restored within one second after load is applied or removed, compared with 5 seconds for a rotating exciter generator.
- ✓ ***LESS VOLTAGE FLUCTUATION***—Voltage fluctuation with load changes is less than half that of standard-type generators.
- ✓ ***GREATER RELIABILITY***—New design eliminates hundreds of electrical connections, the commutator and its brush rig, and many other "break down" points.
- ✓ ***FEWER ADJUSTMENTS***—No extra sensitive adjustments necessary. Regulator has no delicate multiple contact points.
- ✓ ***EASIER SERVICING***—All exciter and regulator components are easily accessible. No dismantling necessary.

New Magneciter generators are now standard equipment on all Onan Electric Plants of 100, 125, 150, 175 and 200KW, as well as on many smaller sizes. A choice of Diesel or gasoline engine power is available on most Magneciter-equipped models. Complete specifications on any or all Onan units will be sent on request.

Find Us Fast In The Yellow Pages

Onan builds a complete line. Air-cooled gasoline models from 500 to 10,000 watts; air-cooled Diesels in 3 and 5KW; water-cooled gasoline models from 10 to 150 KW; water-cooled Diesels, 10 to 200KW. Also separate generators, D.C. plants, and accessories.

Call the Onan distributor listed in your telephone book or write directly to us.

D. W. ONAN & SONS INC.

3515 University Ave. S.E., Minneapolis 14, Minnesota

Onan ELECTRIC PLANTS

A PRODUCT OF STAMPINGS, INC.

THIS TRENCH IS COSTING ONLY 1 CENT PER FOOT

with the

POW-R-SPADE TRENCHER

Unsolicited performance reports from actual users state that POW-R-SPADE narrow trenches cost only 1 cent to 3 cents per foot, *including labor.* (Many report much less than 1 cent per foot.) Digging speed varies from 1½ ft. to 17 ft. per minute depending on soil conditions. POW-R-SPADE is light, rugged, with minimum of maintenance. Shipped *completely* assembled. Neat, fast, professional trenches—3 in. wide to 24 in. deep, or 4 in. wide to 18 in. deep Send coupon today.

One man can transport from job to job.

Stampings, Inc., 321—24th St., Rock Island, Ill.
Please send literature on POW-R-SPADE:

NAME

COMPANY

STREET

CITY STATE

across the Platte River between Plattsmouth and Omaha, thus giving the first direct access between those two cities.

One of the greatest efforts of his career was the promotion of Missouri River navigation. He lived to see this program become a vital part of transportation and industry in his community. In 1957 he was made a life member of the Mississippi River Association, Missouri River Division.

Mr. Pollock was also interested in banking and had served as president of the Farmers State Bank in Plattsmouth.

Surviving him are two daughters, Mrs. Ellen Minor of Kankakee, Ill., and Mrs. Alice Pollock Perry of Plattsmouth, five grandchildren, and 10 great grandchildren.

Nevada Independent Serves Convention Center

The Southern Nevada Telephone Co., Las Vegas, which during the past decade has had to meet service requirements in one of the fastest growing areas in the United States, marked a milestone of progress during April with the opening of a new 6 million dollar Convention Center.

The first large convention held there, The World Congress of Flight, included participation by hundreds of exhibitors in the aviation, missile, and allied industries, along with military officials from not only the United States but all over the world.

The Southern Nevada Telephone Co. installed 354 instruments throughout the huge convention structure to meet the demands of the exhibitors and others.

For example, 50 telephones were installed in the huge press room for use of the more than 200 newsmen covering the event.

The company was required to complete underground cable connections between its central office and the Convention Center prior to the opening, at a cost of approximately $250,000. More than 1,800 man-hours of work were recorded by the plant department alone.

Special services maintained an office in the Convention Center for two weeks prior to the opening and the traffic department staffed a temporary public attended paystation during the Flight Congress.

Through the cooperation of Bell Telephone Co. of Nevada, 29 additional toll circuits were made available, and by manipulating one-way circuits for traffic flow from east to west in the a.m. hours, and west to east in the p.m. hours, toll facilities proved more than adequate.

Approximately 9 miles of ordinary station wire was used to connect the 354 instruments in the Convention Center and its exhibit hall.

AE International Appoints Price Director in Mexico

Milton M. Price, vice president of Automatic Electric International, Northlake, Ill., has been appointed regional director of sales activities in Mexico and Central America, with headquarters in Mexico City, D. F. In addition, Mr. Price will function as vice president and general manager of Automatic Electric de Mexico, S. A.

Gene K. Beare, president of Automatic Electric International, the parent company, says that "the appointment of Mr. Price to this important post in Mexico City is another step in our expansion of services and engineering assistance to the users of our equipment in Mexico and Central America."

A native of South Dakota, after graduating from Groton School, Gro-

The Southern Nevada Telephone Co. had to install a total of 354 telephones to provide service for the World Congress of Flight held in the new Las Vegas Convention Center during April. Guided missiles are shown in the area at the rear.

M. M. PRICE

ton, Mass., Mr. Price studied at the University of Paris and the Ecole Libre des Sciences Politiques in Paris, and at other schools in France and Germany.

After eight years with the investment banking firm of Blair & Co. of New York, with headquarters successively in Yugoslavia and in Paris, he joined Automatic Electric in 1930.

In 1935 he was appointed managing director of Automatic's then European sales affiliate, Automatic Electric Sales Co. with headquarters in Antwerp, Belgium. In this position he traveled to every country in Europe.

He also served prior to joining Automatic Electric, for three years as a Yugoslav correspondent for the Associated Press.

Transferred to Chicago in 1939, Price spent 1940-1944 with the affiliated operating companies in South America and in 1944 was appointed export manager of Automatic Electric International which position he held until his election in December, 1955 as vice president. Since that time he has been active in special assignments in South and Central America.

Name Sullivan ITT Plans Head, Presidential Aide

Daniel M. Sullivan has been appointed director of planning and assistant to the president of ITT Federal Division, Clifton, N. J.

D. L. Mills, president, said Mr. Sullivan will head the division's newly organized business planning department.

Mr. Sullivan joined the ITT System in 1956 and was manager, business and organization planning, at ITT headquarters before being assigned to Clifton.

CONDEX* MULTIPLE CONCRETE CONDUIT

SPOTTING OF CONDUIT ALONG RIGHT-OF-WAY ADJACENT TO PROPOSED TRENCH

NOW AVAILABLE IN ALL THESE SIZES: 2, 4, 6, 8 and 9 DUCT

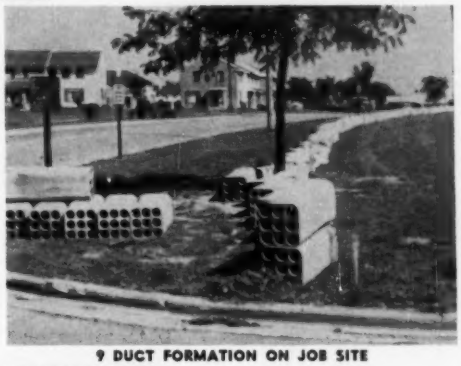
Special fittings—miters—short lengths—expanded web sections available, also adapters to claytile, transite and fiber duct.

CONVENIENT

Delivery can be made to jobsite on 24 hours notice. Condex may be installed in any weather, even in trenches holding water. Ditches can be covered as soon as installation is made. Due to low breakage factor, jobs can be estimated more accurately.

STRONG

Pittsburgh Testing Laboratory tests show: compressing strengths of 10,000 lbs. PSI; water absorption of 3.9%; load test-failure at 74,000 lbs. From a telephone company report on Condex multiple-duct concrete conduit—"it is obvious that no trouble was experienced in cable placing operations, no evidence of excessive abrasion on the lead sheath." Smooth bore is obtained by mechanical honing.



9 DUCT FORMATION ON JOB SITE

ECONOMICAL

Multiple-Duct Concrete Conduit is manufactured with a bell-end joint, eliminating the use of plastic or mortar bandages with dowel pins, for joining. A joint sealing compound, applied with a pressure gun, is all that is needed and cost of this joining operation is less than 3½c per trench foot for both material and labor.

Single crews have installed 1,600 to 1,800 trench feet of conduit per 8 hour day, with two to three less men than with other types which require mortar bandage joints.

Breakage factor of concrete conduit is less than 1%, due to strength of product.

FOR FULL INFORMATION—CALL OR WRITE YOUR LOCAL LICENSEE, OR THE PARENT COMPANY

CONCRETE CONDUIT CORP.
130-01 Northern Boulevard
Corona, New York
Illinois 7-1515

CHICAGO PRE-CAST PRODUCTS CORP.
9400 West Belmont Avenue
Franklin Park, Illinois
Gladstone 5-8116

UTAH CONCRETE PIPE CO.
379—17th Street
Ogden, Utah
Export 2-7513

ELMORE CONCRETE PRODUCTS CO.
Div. of North Star Concrete Co.
Elmore, Minnesota
Elmore 52

EMPIRE CONDEX, INC.
6700 Mad River Road
Dayton, Ohio
Tuxedo 5-7051

WESTERN CONCRETE PIPE CO.
3501 Power Inn Road
Sacramento 19, California
Hunter 6-0026

T. E. L. PRE-CAST PRODUCTS CORP.
1 Industrial Avenue
New Smyrna,
Edgewater, Fla.
Garden 8-9881

J. E. EVANS CONCRETE PRODUCTS CO., INC.
Shelbyville, Indiana
Express 8-9734

AMERICAN CONCRETE PIPE CO.
(Sub. of Amer. Pipe & Construction Co.)
2025 So. 7th Street
Phoenix, Arizona
AL 2-7566

PRE-CON LTD.
Orenda Road
Brampton, Ontario
Canada
BU 6-3042

CONDEX **GAGNE ENTERPRISES, INC.**
9400 WEST BELMONT AVENUE
FRANKLIN PARK, ILLINOIS
GLadstone 5-8116 or 6831

WHAT'S NEW AT
SUTTLE

TOP VALUES

LOUD RINGING BELLS
INCREASE YOUR REVENUE

For telephone company subscribers who need a reasonably priced bell which rings loudly above all shop noises, SUTTLE offers its 6-inch Loud Ringers in harmonic, decimonic, synchromonic and straight line frequencies. Weather-proofed for use outdoors. Made of highest quality materials and set electronically. Prices start as low as $15.85. Fully guaranteed by SUTTLE. Write for free literature.

WIRE REELS PR REELS
NOW $44.00

SUTTLE'S complete line of reels, including the SUTTLE PR Reel (PR 5197) shown here, are designed primarily for use with telephone wire up to 12 BWG, and other coils up to ¼ ton. Light, yet strong and rigid, these reels are built for hard service. Pivot, hub and finger holder parts are made of heavy malleable iron. 47 models to choose from, one for every Independent Telephone Company's use. Send for SUTTLE's Wire & Cable Heel catalog *today*.

SUTTLE
EQUIPMENT
CORPORATION

401 N. 15th St., Lawrenceville, Ill.
Phone: Lawrenceville 782

135 S. La Salle St., Chicago 3, Ill.
Phone: DEarborn 2-3108

Electronic Secretary Reports New Managers, Engineers

George W. Danner, president of Electronic Secretary Industries, Inc., Waukesha, Wis., has announced a realignment of duties in the company's sales and engineering force.

C. R. HUGHES

J. F. CIEMINSKI

Charles R. Hughes has been named general field manager. Formerly eastern district manager, Mr. Hughes joined Electronic Secretary Industries in 1953. He has served as service manager and field engineer. Mr. Hughes will be responsible for supervising five men covering the United States and Canada.

R. E. AVEY

DATUS ENSIGN

Joseph F. Cieminski, Robert E. Avey and Datus Ensign have been appointed district managers to direct sales activities in the midwestern, southwestern, and western districts, respectively.

E. E. EVANS

MATT SHIMA

E. Edwin Evans and Matt Shima became the company's new field engineers. Mr. Evans is assigned to the southeastern district. Mr. Shima will operate in the northeastern district.

A subsidiary of General Telephone & Electronics Corp., the company manufactures automatic telephone answering and message recording equipment, and the Electronic Sentry—an automatic round-the-clock watchman.

McQuillen Named Market Research Head for Exide

William E. McQuillen has been named manager of market research of Exide Industrial Division of The Electric Storage Battery Co., Philadelphia. Formerly process engineering supervisor

W. E. McQUILLEN

at the company's Stokes Molded Products Division, Trenton, N. J., he succeeds Thomas E. Peacock who recently became Exide's marketing manager.

Mr. McQuillen, who joined the Stokes division in 1952, previously was associated with Benson and Benson, Princeton, N. J., market and opinion research company.

Serving two terms in the U. S. Army, McQuillen was in World War II and in the Korean campaign. He had the rank of captain.

Mr. McQuillen is active in the American Society for Quality Control.

AE's Australia Head Filmer Retires After 42 Years

A. R. Filmer, Automatic Electric International's representative in Australia, has retired from the company after 42 years of service.

Now only 56, Mr. Filmer began his career with Automatic Electric before his 15th birthday.

After a number of assignments and training designed to equip him for broad telecommunications executive responsibility, he served in various engineering, sales, and administrative posts. In 1930 at the age of 28, he was elected a director of the company's Australian affiliate, Automatic Electric Telephones Ltd.

A. R. FILMER

Mr. Filmer became managing director in 1940. Under his direction the company grew from a sales operation to an extensive sales, service, installation, and product and equipment assembly organization.

While managing director, he worked closely with top executives of the telecommunication branch of the Postmaster General's Department of Australia, and with local, state, and national officials.

He was one of the early exponents of the use of telephone type relays and switches for automation and industrial control.

In addition to his many contributions to the communications industry, he served as chairman of the Australian Telephone Development Assn.; and as deputy chairman of the Standards Association Committee, responsible for formulating Australian standards on road signs and traffic signals.

His future plans have not been announced, but he expects to remain active in commerce or industry in Australia.

Be Not Self-Proud

"If thou seest anything in thyself which may make thee proud, look a little further and thou shalt find enough to humble thee; if thou be wise, view the peacock's feathers with his feet, and weigh thy best parts with thy imperfections."—QUARLES.

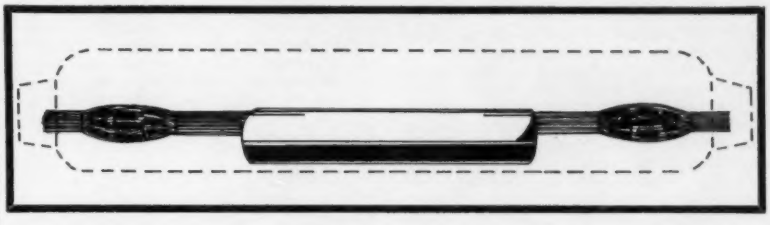
Government and Business

"For government or any committee of Congress to try to usurp the functions of management—either by intimidation or by law—is as alien to our American constitutional concepts as for business to try to usurp the functions of government." — ROGER M. BLOUGH, *chairman of the board, United States Steel Corp.*

CEECO LOADING COILS

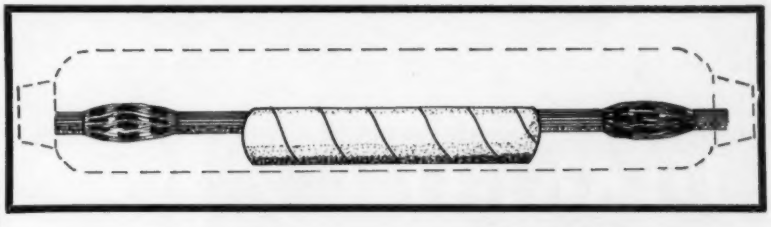
Units for Splicing Mounting

These assemblies are supplied on a wooden dowel, sometimes called sleeve mounted for use in the cable splice.



TYPE 162 FOR MOUNTING IN PLASTIC CABLE SPLICE

Type 162 assemblies can be supplied containing from one to 16 coils of either Type 632(88MH) or Type 638(44MH) and are for use in plastic cable splice. Types MF10, MF11, 641 and 642 coils can be furnished for inter office and toll entrance cables.



TYPE 167 FOR MOUNTING IN LEAD CABLE SPLICE

Type 167 assemblies can be supplied containing from one to 16 coils of either Type 632(88MH) or Type 638(44MH) coils and are for use in lead cable splice. Types MF10, MF11, 641 and 642 coils can be furnished for inter office and toll entrance cables.

CEECO assemblies give "Life like" voice transmission and reception to your long cable and rural distribution wire circuits. "Life like" telephone transmission is a clear, easily understandable telephone conversation over the necessary frequencies present in the voice to be heard via the telephone in the same volume as in "face to face" conversation. Telephone companies providing such quality service will increase subscribers desire to use "LONG DISTANCE" more often, thus increasing revenue.

Write us for assistance on your loading problems. CEECO loading coils are sold by your telephone equipment supplier.

COMMUNICATION EQUIPMENT & ENGINEERING COMPANY
5646 West Race Avenue • Chicago 44, Illinois
Phone EStebrook 8-3109

IN THE NATION'S CAPITAL

Continued from page 18

The Celler report also takes a shot at the Federal Communications Commission because it approved of the terms of the consent decree and because it failed to follow the orders of the Celler sub-committee that a general investigation of Bell System's interstate rates ought to be undertaken. The report says on this:

"With respect to the Federal Communications Commission's participation in this matter, two principal considerations appear. First, the commission's failure, despite the repeated representations of its staff that telephone rates would bear investigation, ever to conduct a general telephone rate inquiry, left it in a peculiarly unfortunate position to advise the Department of Justice with respect to the anti-trust settlement. The committee believes that it is necessary in the public interest that there be instituted a comprehensive, formal rate investigation to determine on a public record a fair return for telephone service; the basis on which such return should be computed; and the various other questions involved in evaluating interstate revenue requirements for ratemaking purposes."

On the FCC angle, the dissenting report expresses this disagreement with the foregoing view of the Celler report:

"The recommendation for a formal telephone rate investigation is in no way related to the announced purpose of the investigation, which is concerned only with the consent decree program of the Department of Justice. The rate inquiry, for which the witnesses were not prepared, was pursued over the objections of the minority and in spite of the fact that the subject matter is properly within the jurisdiction of the Committee on Interstate and Foreign Commerce. Therefore, on the present status of the record, we are unable to join in this recommendation. Mindful of the fact that a telephone rate inquiry could result in an increase instead of a decrease in telephone rates, we are willing to leave this matter to the discretion of the Federal Communications Commission."

What Happens Now?

The main significance of these conflicting reports for the telephone industry at large—as this observer sees it—is that Representative Celler and his three colleagues are not seeking to dispose of this controversy, but to nurse it along for political reasons. And, the chances are pretty good that we have not heard the last of the argument, and that we will hear a lot more about it after 1960 if Representative Celler is still sitting in the seats of the mighty as chairman of the House Judiciary Committee. If he wanted to dispose of the things he found wrong, he would have proposed some legislation. The Republican dissenters chided him for this, pointing out that not a single bill had been introduced by anybody on the committee. The main tangible recommendation of the Celler report is that the attorney general ought to get busy and reopen the consent decree.

Now, Chairman Celler knows very well that no Republican attorney general is going to move a finger to reopen this decree as long as President Eisenhower sits in the White House. But, that will only be for 19 months. What happens then? Eventually, Chairman Celler expects there will be some changes made, and that a different attorney general will take a more sympathetic view of his sub-committee's recommendations and go after this consent decree.

Meanwhile, the controversy has been shaped up as a political issue, concerning which we may hear some campaign oratory during the summer months of 1960. Word has evidently gone out from the Democratic leadership that the utility issue ought to be good for another ride. Hence, the reference to the need for telephone rate investigations and

DIACROM
DIAMOND SPATULA
PATENTED

A PRECISION TOOL FOR CLEANING RELAYS AND CONTACTS OF EVERY TYPE

By utilizing diamond particles as the abrasive element, the Diacrom Spatula requires so little pressure to do an effective cleaning job on relays and contacts, that normal gap is unaffected. It is fast and thorough. This same light pressure removes very little material — less than one micron — and leaves a clean, polished surface . . . in a minimum of time and with a minimum of effort.

3 TYPES AVAILABLE
No. 200 for rapid cleaning of industrial relays.
No. 300 for cleaning intermediate relays, telephone relays, etc.
No. 400 for cleaning extra-sensitive relays.

PACKAGED IN PLASTIC CASES
WRITE FOR BROCHURE

JONARD INTERNATIONAL CORPORATION
624 MADISON AVENUE, NEW YORK, N. Y.
PLaza 3-9170

A Directory for the Gulf Telephone Company

Printed by
R. R. DONNELLEY & SONS COMPANY
350 East Twenty-second Street, Chicago 16

possible rate reductions during an inflationary period while the price of everything else is climbing—including the cost of government.

Independent telephone companies and manufacturers will be interested in those passages of the Celler report bearing on the question of whether Independent manufacturers could supply companies of the Bell System at as low a price as Western. But, inasmuch as the assumptions of hypothetical conditions, which would prevail on this or that situation with respect to both market and supply, are necessarily complex and debatable, they cannot be reviewed here and should be read in connection with the actual record and testimony taken by the Celler committee.

Reaction to Celler Report

Considering the magnitude of the subject covered and the importance of the economic implications involved, the Celler report caused hardly a ripple. Newspapers generally printed the press wire reports and let it go at that. Except for the financial papers, editorial writers generally ignored it in competition with other stirring events taking place at the same time—such as the foreign ministers at Geneva and the space monkeys. The Justice Department refused to comment.

AT&T President Frederick R. Kappel called the majority report "a thoroughly biased and slanted document which ignores the real public interest of over 36 million telephone customers, 725,000 employes, and 1.6 million shareowners of the Bell System and wholly disregards vital defense considerations."

Kappel issued a statement defending the AT&T consent decree as "definitely in the public interest and . . . legally sound." He protested that the report's attack on long distance telephone rates "is wholly unjustified and completely ignores the facts." Kappel said present rates are on the average 20 per cent lower than in 1940 "while prices of other commodities generally have increased more than 100 per cent in that period."

Senator Keating (R., N. Y.), who served on the House sub-committee during its consent decree investigations, charged that the majority report was "a partisan political tract" aimed at trying to "discredit the anti-trust program of the administration." Keating said its issuance violated House rules since it contained accusations against persons not given a chance to testify and since it was not approved by the parent Judiciary Committee.

OUTDOOR TELEPHONE CADDY*

As America moves outdoors, here is excitement that sells—created and designed to give the customer the excitement that makes them buy. The smartness of the modern telephone CADDY allows the telephone to take its significant place in the new trend in gracious living.

NOW
You Can Permanently Install AN OUTDOOR EXTENSION

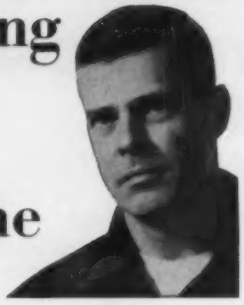
PAT. APPLIED FOR

Styled to meet today's demand for additional telephone service on the patio, at pool-side—anywhere outdoors—golf course? Or flower garden? The CADDY is a new achievement in design that accentuates durability and desire. Your customer will love their color phone beneath its crystal clear cover mounted on a rugged plastic shelf supported by an annodized aluminum base. Permanently installed, the extension phone compliments their outdoor activities. Write or phone today for your brochure on the outdoor telephone CADDY.

GLADWIN PLASTICS, INC.

165 Courtland St. N.E. Atlanta 3, Ga. Jackson 5-5384

"Going To Maine This Summer?"



Chuck Bradley
Osmose Forester

If so, you will want to take a look at the way Central Maine Power Company handles its transmission brush control. R/W Maintenance didn't perform this work, but we would be proud to take the credit if we had.

A beautiful example of selective spraying! Not only have all low-growing plants been left intact, but you can see where they have spread out all over the place once the competition of the tall-growing, undesirable trees was removed. This makes it just that much harder for the undesirables to regain a foothold. Good public relations, too.

We do not perform our R/W service for Central Maine. Not all utilities, though, have the skilled manpower available to achieve this kind of result. Maybe here's where we can help you. If you would like to see examples of our own selective work in other parts of Maine or many other states, drop us a card.

Chuck Bradley

R/W MAINTENANCE SERVICE
a Division of
Osmose®
WOOD PRESERVING CO.
OF AMERICA, INC.
976 Ellicott St., Buffalo 9, N. Y.
ELmwood 5905

DYNAMIC CONCERN

Concluded from page 34

catering to their wants—or maybe, even to their whims.

Risk in Revenue Changes

Another factor that introduces a greater degree of risk as we move toward the objectives I've been outlining is the change occurring in our revenue mix. It was not too long ago that our revenues were derived mostly from primary exchange services. Now other and less stable factors must be reckoned with. Toll revenues have proportionately increased. These, of course, are less stable than exchange revenues. Then, we have what might be called "fringe" revenues. Particularly among these are extension telephones. Extension stations today—in our companies at least—are about twice as great, proportionately, as they were just five years ago. And, if we give the customers all they want, I have no doubt that, in another 10 or 15 years, residence extensions will exceed residence primaries in number.

As our trend in this direction continues, we obviously are increasing the size of a revenue component—extension station revenues—which customers can eliminate in times of business stress. This, of course, is the situation with any of the "fringe," or supplemental, equipment items. But, we should not use this as an argument against incurring such risks as these. We should incur them because it is in the public's interest to do so. But, I do think we should recognize the situation for what it is.

And, there are other kinds of risks too. For example, the replacement of manual exchange and manual toll operations with automation. This trend is also extended to billing and accounting operations, and to providing expensive labor-saving tools for plant forces as well.

With this trend toward automation, we are, of course, replacing controllable labor expenses with non-controllable fixed charges. Thus, in times of recession we are less able to control expenses than heretofore—and herein lies a real and added business risk.

These comments are not intended to make a case away from automation—or that we shouldn't serve the public adequately and well merely because there are some new risks. Quite the opposite. Progress demands we take these risks—and we should and must take them.

But, realism requires that these risks be reflected in the rate of return on our invested capital. If they are not so reflected, there is little likelihood that we shall be able to give the public all of the kind of service we know it wants. It is up to us in the industry to make our own case.

DO YOU WANT 10¢ DOLLAR

Continued from page 23

systems — certainly a subject of local rather than national concern — Congress voted to enlarge it.

By accepting the President's proposals for cutbacks, and adding some of its own, an economically-minded Congress could bring expenditures down to 70 billion dollars. That is probably a spending minimum. It is not impossible to attain. In fact pre-Sputnik, it was the administration's target.

Shall We Continue Borrowing?

(3) Do we really want to continue as we have been doing: borrowing what is needed and passing along the cost of today's government to our children to pay tomorrow with, say, a 10-cent dollar?

The federal government has paid much of its way by borrowing ever since 1931. In seven of the past 11 years we have had to pay for a budget deficit by borrowing. Have we found this to be a satisfactory way of life? We have not.

When the government does not collect enough taxes to pay current expenses, it issues governmental promises-to-pay to cover the difference.

Such promises may be called savings bonds or certificates of indebtedness or long-term bonds. Whatever the name, we accept them at their face value so long as we believe that the government will live up to its promises.

Since the Treasury has issued so many, however, and since Congress is obviously reluctant to levy enough taxes to pay currently for the steadily-increasing governmental costs, the value of these obligations has gradually declined. This is what is behind the decline in the purchasing power of the dollar over the past 25 years.

Inflation Is Cruelest Tax

The resulting inflation has rightly been called the cruelest tax of all. Just because of taxes and inflation the person who earned $5,000 in 1946 would have to earn $7,343 today—nearly 50 per cent more—simply to be as well off as he was before.

It is plain to see what happens to the retired man, the widow on a fixed income, the insurance policy or annuity payable in a fixed number of dollars.

The best way to weaken America as a nation is to convince our citizens

COMPARE COLLINS WITH ANY OTHER MICROWAVE SYSTEM

For economy of installation, plus year after year economies of operation and maintenance, microwave wins hands down over other methods of transmission. But it pays to make sure of getting everything microwave has to offer in quality of transmission, performance, reliability and long life equipment. It pays to compare Collins Microwave and Carrier with all the rest . . . feature for feature, specification for specification, and dollar for dollar. And when you *do* compare you will find Collins gives you more . . . *far more* . . . than any other microwave system.

Features which cut costs, improve transmission quality, and reduce maintenance.	COLLINS Microwave	A Microwave	B Microwave	C Microwave	D Microwave
Built-in test and multiple reading metering facilities.	✔		✔		✔
Final system test before shipment. All inter-rack wiring and test data supplied to purchaser.	✔	✔			
True high density system. Expandable to 480 channels. Using one r-f system.	✔				
Convection cooling throughout. No blowers necessary.	✔	✔	✔		
Mechanically filtered carrier to eliminate cross-talk.	✔				
Corrosion resistant materials used entirely.	✔				
Space-saving by using both sides of rack.	✔			✔	
Interconnection panel at top of equipment.	✔				✔
Receiver AFC with adjustable "lockout" prevention circuitry.	✔	✔			
Loud speaker available in service channel.	✔		✔		
Hot and cold standby. Frequency and space diversity equipment available.	✔			✔	
Ferrite isolator in receiver to reduce distortion and prevent local oscillator radiation.	✔				
Synchronous carrier (all channels) — as required for high speed data.	✔				

Only Collins Microwave can give you the highest quality transmission, lowest maintenance cost, and greatest value for lowest final cost.

GET ALL THE FACTS ABOUT COLLINS MICROWAVE. WRITE OR CALL COLLINS RADIO COMPANY, TEXAS DIVISION SALES, 1930 HI-LINE DRIVE, DALLAS 7, TEXAS.

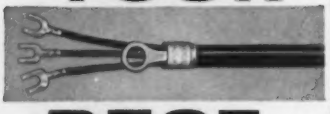
COLLINS

COLLINS RADIO COMPANY • DALLAS • CEDAR RAPIDS • BURBANK

CORDS BY Runzel

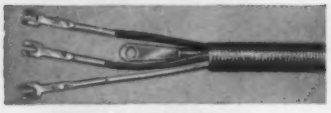
YOUR

NEOPRENE



BEST

NYLON



BUY!

COTTON

Are you familiar with the features of these fine cords?

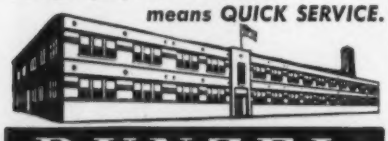
NEOPRENE covered cords are a highly serviceable cord, extensively used in a wide variety of services. They are moisture and grease proof . . . easy to keep clean.

NYLON covered cords are a relatively new development in telephone cords. Their fine smooth texture makes them the preferred cords for switchboard use. They give long service. Preferred by operators because of their fast, easy handling.

COTTON cords are in standard use everywhere. Their fine woven wrap makes them very serviceable for all around purposes.

Take your choice—Neoprene, Nylon or Cotton. They're all high quality cords made in accordance with Runzel high standard of quality. We carry a large stock of cords for every purpose.

Our geographical location means QUICK SERVICE.



RUNZEL
Cord and Wire Co.
4723 W. MONTROSE AVE.
CHICAGO 41, ILL.

that our governmental promise to pay, our currency, has lost its integrity.

There would not be much use in saving if we suspect that the dollars which we put aside with such difficulty won't be worth a dime in purchasing power at the time we need them—to raise a family, to send our children to school, to pay our own way when we retire.

Other Fork in the Road

Hence, it looks as if the government had better take the other fork of the road, uphill and stony as it may be: *reduce expenditures, and levy such taxes as are needed to pay for current costs.*

An immediate objective might be a 75-billion-dollar budget for the next fiscal year.

This five-billion-dollar reduction of the present budget would require the utmost effort of both the President and Congress. It would also require strong support from the individual citizen, who might keep in mind that every reduction of one billion dollars in federal spending is the equivalent of a $20 bill in the pocket of the average family.

Since federal, state and local taxes are all so high, Congress will need to make an extraordinary endeavor, in levying any further taxes, to damage our economy as little as possible.

It is vital to permit and if possible to encourage our economy to grow. If private enterprise flourishes in this country, if plants are steadily renewed and improved through investment—"plowing in"—of profits, the U. S. Treasury, now more heavily interested in corporate profits than all private stockholders put together, will reap increasing revenues, even though tax rates remain constant.

Looking Deeply

Finally, Congress must face the tremendous task of looking deeply into the problems of tax structure and fiscal policy.

The most promising solution might be the creation of a Commission on Federal Tax & Fiscal Policy, organized along the lines of the Hoover Commission, whose recommendations have led to savings of billions of dollars through improved efficiency and reorganization of the executive branch.

Proposals to set up such a special nonpartisan group of the highest distinction have already been made in Congress. They deserve careful attention.

A nation such as ours cannot concede that its fiscal problems are insoluble. We must apply our best brains to the project and stop trying to patch up an inadequate, archaic system.

Surely American intelligence can be mustered to provide the government with a sound fiscal system, to match a sound economy and a sound defense organization.

Reprinted from the January, 1959, issue of *The Reader's Digest*. The Reader's Digest Association, Inc., Pleasantville, N. Y. Printed in U. S. A.

AE Names H. W. Jones Marketing Research Head

Herbert W. Jones has been named director of marketing research for Automatic Electric Sales Corp. at Northlake, Ill.

Mr. Jones will be responsible for developing and implementing programs of analysis and research into the mar-

H. W. JONES

keting activities through sales and distribution and control; and for economic and sales forecasting.

He joined Automatic Electric in 1953 as order section head of the carrier and radio sales department, and was later named assistant to the manager in that department.

He attended Boston University and the University of Chicago. Prior to his association with Automatic Electric, he served as research associate for the University of Chicago.

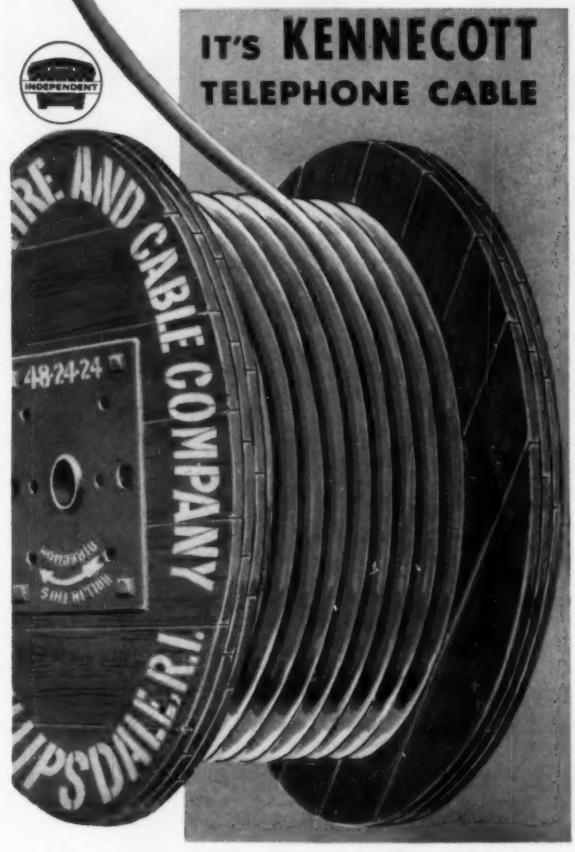
He is a member of the American Marketing Association, and also serves as advisor to one of the company-sponsored Junior Achievement organizations.

Stromberg-Carlson Promotes Two Engineers

Two promotions to new responsibilities in Stromberg-Carlson's telecommunication engineering department have been announced by Robert R. Dobbin, chief engineer. Stromberg-Carlson is a division of General Dynamics Corp.

TIME TESTED!

DEPENDABLE SERVICE SINCE 1897! That's the record of Kennecott lead-alloy sheathed Telephone Cable! Exacting quality control goes into *every* step of its manufacture. Rigorous tests check dielectric strength, insulation resistance, conductor resistance, capacitance, density and dimensions. You're *sure* this cable will retain its electrical properties over the years! Call the Chase sales office nearest you for complete information.



CHASE BRASS & COPPER CO., WATERBURY 20, CONN.
Distributor for the Products of the
KENNECOTT WIRE & CABLE DIV.
of The Okonite Company

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Baltimore	Cleveland	Houston	Minneapolis	Philadelphia	San Francisco
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Charlotte	Denver	Kansas City, Mo.	New York	Providence	Waterbury
Chicago	Detroit	Los Angeles	(Maspeth, L. I.)	Rochester	

TBM SERVICE ENTRANCE MAST for OUTDOOR TELEPHONE BOOTHS

Patent Pending

Model TBM Service Entrance Mast provides complete service entrance facilities for outdoor telephone booths with the definite plus advantages of lower cost and easier installation. Raises power lines for specified ground clearance. Looks better, lasts longer, costs less than any comparable installation.

FITS MOST MODELS OF OUTDOOR BOOTHS

MEETS ALL REQUIREMENTS

LOOKS BETTER
The TBM Mast is engineered for the job. Adds to the appearance of any style booth.

LASTS LONGER
Heavy gauge steel tubing used throughout for life-time service. Only heavy duty fittings used.

COSTS LESS
Actual installations show savings up to two-thirds over conventional pole and 4" x 4" installations.

Utility Service Co., Inc.

1620 THIRTEENTH STREET **RACINE, WISCONSIN**

J. Gordon Pearce has been appointed assistant manager of the systems planning branch, reporting to Roy W. Jones, manager. Mr. Pearce will have direct responsibility in planning for electronic switching systems and associated projects based upon this type of circuitry.

Robert L. Layburn becomes section manager of carrier & component development, reporting to Sherman B. Weiner, Manager of the electronics projects branch. This section, as now functioning, consolidates the design activity of carrier units and systems and network products finding primary usage in this application. The section also will provide mathematical and statistical services in support of such projects.

Mr. Pearce joined Stromberg-Carlson in 1956, and was assigned to an electronic switchboard development project; first as project engineer for a long distance switchboard, then as assistant section head with responsibility for a fully electronic automatic telephone system suitable for both voice and data transmission. Just prior to this latest appointment, he was project manager for the forward area switchboard.

Previously, Mr. Pearce had been a group head in the Telephone Switching Division of Automatic Telephone & Electric Co., Ltd., of Liverpool, England. His responsibilities included the design, development, and testing of an experimental electronically-controlled crossbar system, and the design and authorization of circuits for overseas administrations.

Mr. Pearce holds the C. & G. Final Certificate in Telephony from Liverpool College of Technology. He has authored technical articles in his field of specialty and has been a visiting lecturer at Liverpool College of Technology and at the British Post Office training school. He is a member of the American Institute of Electrical Engineers (AIEE), and holds several patents.

Mr. Layburn went to Stromberg-Carlson in 1955 as senior engineer for carrier, multiplex, and compandor development, later becoming section head for these projects. He has been most closely associated with the transistorized subscriber carrier and negative impedance repeaters.

Previously, Mr. Layburn had been a product development engineer at Western Electric Co. where, among other assignments, he developed the crystal units for underwater repeaters used on the first trans-Atlantic telephone cable.

Mr. Layburn received his BSEE from Cornell University and his MS from Stevens Institute of Technology. He is a member of the AIEE and Tau Beta Pi.

AE's Detroit Sales Rep. W. E. Stoffregen Retires

W. E. Stoffregen, Automatic Electric Sales Corp.'s sales representative in Detroit, has retired after 42 years of service with the company.

W. E. Stoffregen (in auto), who recently retired after 42 years of service with Automatic Electric Sales Corp. is pictured in front of the corporation's headquarters in Northlake, Ill. saying goodbye to H. C. Smith, vice president of the corporation's communications products division.

Mr. Stoffregen joined the company in 1912. After completing the company's student training course, he went on the road as an installation and service man.

He became a sales representative in the New York office in 1917, but left in 1918 and joined the U. S. Coast Artillery Corps during World War I.

He returned to the company in 1923 as a salesman for the Cleveland office, and in January 1925 opened the present Detroit sales office.

Carter Is Exide Manager, Pittsburgh Area Branch

William E. Carter has been named branch sales manager in the Pittsburgh area for the Exide Industrial Division of The Electric Storage Battery Co.

He succeeds Robert L. Kegg who resigned to establish his own business.

Mr. Carter, who has been with the Philadelphia company for nearly 10 years, takes over sales and service of industrial batteries and related equipment in a territory which covers western Pennsylvania, West Virginia and several counties in Kentucky, Maryland, Ohio and Virginia.

Spiraflex® CORD

BY GENERAL INSULATED WIRE WORKS, INC.*

*Licensed to manufacture under existing patents.

Telephone cord sets of proved performance backed by General Insulated's unmatched experience and know-how in the manufacture of quality telephone tinsel cordage:

Spiraflex HANDSET CORDS in bright colors with non-staining thermoplastic jackets in solid color extrusions matching color shade and sheen of telephone sets. Also non-staining black Neoprene jacketed cords. Both types available with or without integral moldings and terminations. Furnished in standard or extra long lengths.

STRAIGHT HANDSET AND DESK SET CORDS are available in non-staining thermoplastic constructions in matching colors and in black Neoprene.

GENERAL INSULATED WIRE WORKS, INC.

A DIVISION OF GENERAL CABLE CORPORATION
Providence 5, Rhode Island

Rural Telephone Lines

TALK BETTER LAST LONGER

with low-cost

Copperweld® O-Eighty-Thirty

TELEPHONE LINE WIRE

The superior voice transmission of O-Eighty-Thirty Telephone Line Wire makes friends and builds good will every time a subscriber picks up his phone. And this low-cost line wire continues to provide the same excellent talking qualities even after many years of service. There's no building-up of noise level and weakening of signals due to rust, because O-Eighty-Thirty is completely non-rusting.

You save money, too. The initial cost is practically the same as ordinary wire. And its extra high strength permits economical long-span construction on both voice and carrier circuits. O-Eighty-Thirty is easy to install, due to its light weight—which also saves on shipping and handling costs.

In short, you can provide high-grade service at low cost for your subscriber loops and secondary toll lines by stringing O-Eighty-Thirty Line Wire. And you'll be building for long, trouble-free life.

Write us today for prices, sag data and staking tables.

COPPERWELD STEEL COMPANY

WIRE AND CABLE DIVISION *Glassport, Pa.*

For Export: COPPERWELD STEEL INTERNATIONAL COMPANY, New York

SOLD BY LEADING DISTRIBUTORS

TELE-MUFF Jr.

The Head Set Ear Cushion
Designed Especially for Switchboard Operators

Made of Soft Pliable Vinyl Foam

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Herreid, South Dakota

W. E. CARTER

First joining Exide as a service engineer, he served for 3½ years in a branch at Kansas City. In 1953, he transferred to the Pittsburgh branch as a sales-service engineer and took charge of a number of Exide's national accounts.

Mr. Carter is a graduate of the University of Kansas with a degree in electrical engineering.

Glory in Service

"No true and permanent fame can be founded, except in labors which promote the happiness of mankind." — CHARLES SUMNER.

Volkland Heads Sales At Sierra Electronic

Charles M. Volkland has been appointed sales manager of Sierra Electronic Corp., a subsidiary of Philco Corp.

C. M. VOLKLAND

Mr. Volkland goes to Sierra from Philco's Government and Industrial Division, where he was West Coast assist-

Convention Calendar

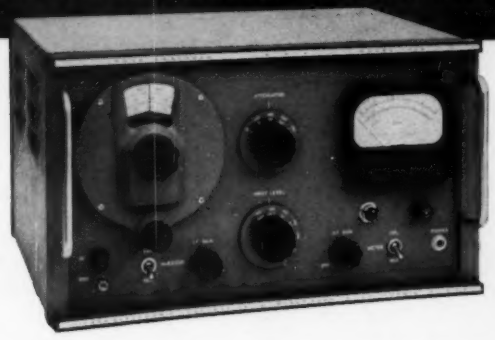
1959

Association	*Date*	*City*	*Hotel*
Washington-Oregon*	June 11, 12 and 13	Seattle	Olympic
New York	June 15, 16 and 17	Schroon Lake	Scaroon Manor
Tennessee	Sept. 9 and 10	Nashville	Hermitage
Arkansas	Sept. 14 and 15	Hot Springs	Arlington
Michigan	Sept. 15, 16 and 17	Grand Rapids	Pantlind
Rocky Mountain	Sept. 16, 17 and 18	Salt Lake City, Utah	Utah
New England	Sept. 21, 22 and 23	Bretton Woods, N.H.	Mt. Washington
West Virginia	Sept. 23 and 24	Davis	Blackwater Falls Lodge
Nevada	Sept. 24, 25 and 26	Elko	Commercial
North Carolina	Oct. 4, 5, 6 and 7	Pinehurst	Carolina
Alaska	Oct. 5, 6 and 7	Anchorage	Westward
USITA Annual Convention	Oct 11, 12, 13 and 14	Chicago	Conrad Hilton
South Carolina	Oct. 25, 26 and 27	Clemson	Clemson House
Virginia	Oct. 29 and 30	Roanoke	Roanoke
Alabama	Nov. 9 and 10	Birmingham	Thomas Jefferson
Georgia	Nov. 11 and 12	Atlanta	Dinkler-Plaza
Oklahoma	Nov. 18 and 19	Oklahoma City	Skirvin
Florida	Nov. 30 and Dec. 1	Jacksonville	Robert Meyer

*Joint Convention

Fast, convenient, dependable precision wave analyzers

for wave analysis, wire carrier and microwave subcarrier measurements



Sierra 121A Wave Analyzer is a double superheterodyne receiver covering 15 KC to 500 KC. It provides data directly in volts and dbm at 600 ohms, and offers high selectivity required for single sideband carrier measurements.

Sierra 158A Wave Analyzer is similar to Model 121A but covers 500 KC to 10 MC.

Both instruments have ±2 db accuracy, spurious response at least 50 db down, and signal measurement range of 77.5 μv to 97.5 volts. Available for either cabinet or relay rack mounting.

Frequency-selective carrier-frequency voltmeters

For carrier frequency and other field or laboratory work between 3 KC and 800 KC, Sierra offers five accurate, stable tuned vacuum tube voltmeters. All are direct reading in voltage and dbm at 600 ohms from —80 dbm to +42 dbm. All feature built-in calibration oscillators, level calibration circuits, aural monitoring jacks, and (except 103B) precision spiral scale dials. All are ruggedly constructed of quality components for long operating dependability.

SPECIFICATIONS — SIERRA VOLTMETERS

Model	Frequency Range—kc	Selectivity		Accuracy		Direct Reading in dbm	
		Down 3db	Down 45db	Frequency	Measuring	Balanced	Unbalanced
101C	20-500	± 550 cps	± 2900 cps	Note A	± 3 db	Note D	600 ohms
103B†	3- 40	± 400 cps	± 3000 cps	± 0.5 kc	± 3 db	Note D	600 ohms
104A	5-150	± 300 cps	± 1500 cps	± 1 kc	± 3 db	Note D	600 ohms
108B	15-500	± 550 cps	± 2900 cps	± 3 kc Note B	± 2 db Note C	135 ohms Note D	600 ohms
114A	100-800	± 550 cps	± 2900 cps	Note A	± 3 db	Note D	600 ohms

† Contains carrier re-insertion oscillator for monitoring suppressed carrier systems. Furnished with planetary drive dial. Note A. Ranges from ± 2 KC at low end of dial to ± 3 KC at upper end. Note B. ± 1 KC in the 48 KC to 256 KC region. Note C. ± 1 db for + 30 db to —40 db attenuator steps on 135 ohm balanced measurements. Note D. All models may be converted for 135 and 600 ohm balanced line measurements by convenient plug-in bridging transformer, Model 130D.

Data subject to change without notice.

Sierra Electronic Corporation

A Subsidiary of Philco Corporation

4694T Bohannon Drive • DAvenport 6-2060

Menlo Park, California, U.S.A.

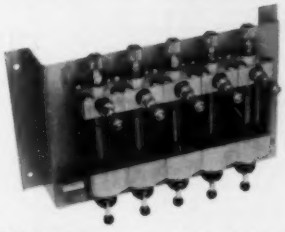
Sales representatives in Major Cities

Canada: Atlas Radio Corporation, Ltd., Toronto, Montreal, Vancouver, Winnipeg

Export: Frazar & Hansen, Ltd., San Francisco, New York, Los Angeles

ACCESSORY EQUIPMENT FOR CONTINUOUS FEED PRESSURE SYSTEMS

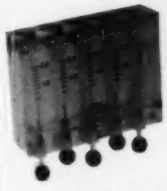
AIR RATE INDICATOR PANEL



PART NO. 8174

Furnished in groups of 5 and 10 units. Other Panel sizes also available.

FLOWMETER UNITS

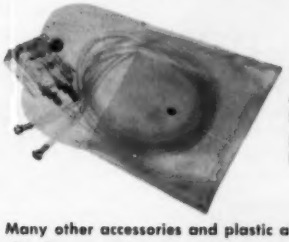


PART NO. 8001-B
5-unit

PART NO. 8000-B
10-unit

Flowmeter units can be furnished in groups of 5 and 10 units. Panel mounting is also available.

AIR FLOW INDICATOR



PART NO. 8177

Air Flow Indicator used in leak locating of telephone cables under Air Pressure.

Many other accessories and plastic air supply lines are available for pressurizing systems.

WRITE FOR ACCESSORY CATALOG

S&G MFG. CORP.

P.O. BOX 1309

NEW ORLEANS 10, LA.

PHONE: JA. 5-3142

Stewart

TEST EQUIPMENT

COMMUNICATIONS TEST SET

MODEL JK

Transistor Oscillator, Communications D B Meter; Leather carrying Case.

Transistor Oscillator, Model J: For checking and locating trouble in audio frequency and carrier systems. Sine wave output 0, —13, —16 D B M 1,000 cycles into 600 ohm line. Output impedance 600 ohms. **Communications D B Meter, Model K.** Frequency band, 60 cycles to 600 K C with no correction. Reads accurately on unsymetrical and sine waves. D B M readings, —20 to +40 in RED; Volt ranges 0 to 1, 5, 25, and 125 in BLACK. Internal loads 600 and 150 ohms. **Leather Case,** 3 compartments for Testers and Leads. Either Model J or Model K may be purchased separately.

STEWART BROTHERS
Division of Instrument Laboratories
315 W. WALTON PL., CHICAGO 10, ILL.

Haley's

CEDAR POLES

and FIR CROSS ARMS

LOW CONDUCTIVITY AND SAFER WITH PENTACHLOROPHENOL FULL-STRENGTH TREATMENT

CLEAN • DRY
LONGER LIFE
LIGHT WEIGHT

2 YARDS MINNEAPOLIS FINDLAY, OHIO

R. G. HALEY & CO.
SPITZER BUILDING
TOLEDO 4, OHIO

ant regional sales manager. He has been associated with Philco organizations since 1948 in both sales and engineering capacities.

In his new post with Sierra, Mr. Volkland will direct the company's nationwide sales and marketing activities. Sierra is a leading manufacturer of communications test and power measurement equipment, as well as custom test equipment and telemetry systems.

A native of Kansas, Mr. Volkland attended Kansas State College and was with the U. S. Army Signal Corps in World War II.

THINK AHEAD!

Concluded from page 21

Mr. Roberts also gave a capsule review of other legislative matters affecting the industry and reported in detail on the status of the drive to obtain repeal of the federal excise tax on telephone service. He said:

"If we don't get the tax removed this year I am sure it will be the policy of our association to keep hammering away at it until something is accomplished. Indicative of the fact that the campaign of the telephone industry to rid ourselves of this yoke around our necks has been productive of results is pointed up by the circumstance that 73 bills have been introduced to repeal the local and long distance tax entirely, one has been introduced to repeal the local tax only, eight have been introduced to reduce both by 50 per cent, and three have been introduced to provide for a termination date, making a total of 85 measures so far put into the hopper."

Mr. Roberts also reviewed the results of the USITA's advertising activities. "The Telephone Advertising Institute," he said, "was established 15 years ago and has been functioning well in the interest of our companies ever since, supplying advertising material for local use at low cost. The national advertising program was launched five years ago and since that time our printed messages have been appearing with good effect at regular intervals in varying format in *Time, U. S. News & World Report,* TELEPHONY, *Farm Journal,* and *Telephone Engineer & Management.* Evidence of its excellent results come across my desk daily, many of them consisting of requests from people in all walks of life for further information about Independent telephone companies and their activities."

The convention closed with an inspirational address by Dr. Murray Banks, nationally-known psychologist and teacher of New York City.

The convention re-elected the following directors: Ray J. Alter of Galesburg, Don Anderson of Geneseo, Donaldson Coombes of St. Louis, Mo., and M. A. Kugler of Okawville. James Stice of Altamont also was elected to the board.

Other directors are Gordon Aller of Chicago, R. W. Britt of Bloomington, Russell Logue of Casey, R. A. Lumpkin of Mattoon, W. R. McGrew of Park Ridge, A. T. Renn of Chicago, Burton W. Saunders of Bloomington, Daniel Schaefer of Sycamore, Roland Schmidt of St. Jacob, and K. L. Schroeder of Freeport.

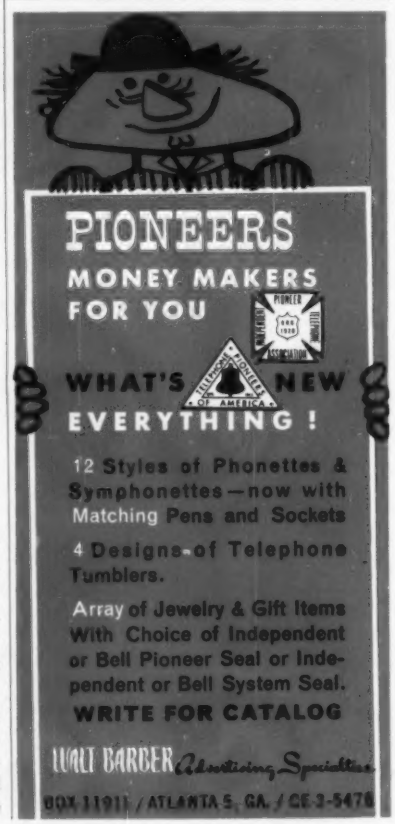
The directors re-elected the following officers: President, Mr. Schroeder; vice president, Mr. Schaefer; treasurer, Mr. Alter; secretary, J. G. Hardy of Springfield, and general counsel, Ben B. Boynton of Springfield.

The Reasoning Man

"Always win the fools first. They talk much, and what they have once uttered they will stick to; whereas there is always time, up to the last moment, to bring before a wise man arguments that may entirely change his opinion."—HELPS.

The Fortune of Today

"We should manage our fortune as we do our health—enjoy it when good, be patient when it is bad, and never apply violent remedies except in an extreme necessity."—LA ROCHEFOUCAULD.


PIONEERS
MONEY MAKERS FOR YOU
WHAT'S NEW
EVERYTHING !
12 Styles of Phonettes & Symphonettes—now with Matching Pens and Sockets
4 Designs of Telephone Tumblers.
Array of Jewelry & Gift Items With Choice of Independent or Bell Pioneer Seal or Independent or Bell System Seal.
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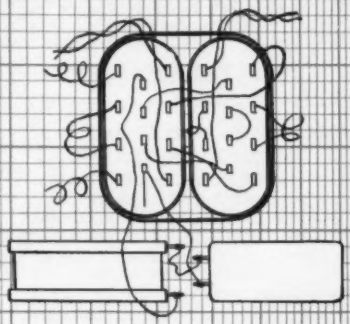

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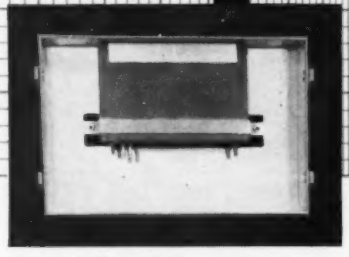
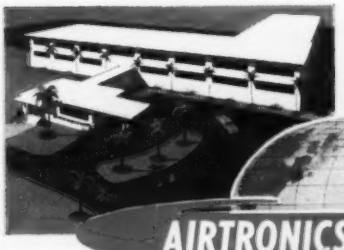


Provision is made for carrying a spare network in the cover.

Portable and DURABLE

Airtronics Portable Test Hybrid is built to withstand the rough handling of normal testing operations. Rugged construction throughout, and housed in heavy-gauge aluminum travel case with handy carrying handle.

Dimensions 8" x 9" x 12"
Approximate Weight 14 lbs.



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Here is a test set designed especially for you! A precision test hybrid, packaged for flexibility and convenience. Give your test results the advantage of precision equipment designed for reliability and consistency:

Airtronics Portable Test Hybrid is designed to use standard type 115H or 115AL Precision Networks which are available in all toll offices.

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128 type low pass filter.
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5 pr. #19 ga. Neoprene, coded ..... 4¢ ft.

10 pr. # 19 ga. Neoprene, coded ..... 10¢ ft.

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16 pr., textile ins., coded #22 20¢ ft.

11 pr. paper ins., #19 ga. ... 20¢ ft.

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12 ft. stub 12
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BD-404, as above 200
BD-606, as above 250
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XB-26, 6 ft. stub 12.

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Above equipment can be inspected at above address on June 20-21, 1959

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